

MANUFACTURERS' RECORD

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER

VOL. XLVI, No. 20.
WEEKLY.

BALTIMORE, DECEMBER 1, 1904.

\$4.00 A YEAR.
SINGLE COPIES, 10 CENTS.

Manufacturers' Record.

PUBLISHED EVERY THURSDAY BY THE
MANUFACTURERS' RECORD PUBLISHING CO.

RICHARD H. EDMONDS, President.
THOMAS P. GRASTY, Vice-President.
FRANK GOULD, Secretary.
VICTOR H. POWER, Treasurer.

OFFICE: MANUFACTURERS' RECORD BUILDING,
BALTIMORE.

RICHARD H. EDMONDS,
Editor and General Manager.

THOMAS P. GRASTY,
General Staff Correspondent.

SUBSCRIPTION, - - - \$4 a Year.
TO FOREIGN COUNTRIES, - 25s. 6d. a Year.

BALTIMORE, DECEMBER 1, 1904.

FOR A GREATER BALTIMORE.

The efforts which Mayor Timanus is making to unite all the business organizations of Baltimore in favor of a broad, liberal policy in behalf of a Greater Baltimore are worthy of all praise. In this day of close rivalry business success must depend upon business facilities. The individual concern hampered by lack of adequate facilities for doing business must give way to its rival which is equipped with every modern improvement for lessening the cost of producing and selling. As it is with an individual, so it is with a city. Blessed as Baltimore is with superb natural advantages, these will count for but little in competition with other cities unless our natural advantages are backed by energy and enterprise and by a development of every modern improvement for attracting people and trade. Cursed as we are with badly-paved streets, which would be a disgrace to any municipality, we add to this unfortunate condition the fact that this is probably the only large city in Europe or America without a sewerage system. Outsiders who hear for the first time of the lack of a sewerage system in Baltimore scarcely believe that such a thing is possible in this day and generation. Moreover, there are other things that need attention almost as greatly as sewerage and paving.

If Baltimore is to be a modern, up-to-date city; if it is to hold its rightful place in the world, it must do, and do on a broad scale, with no niggardly policy in control, the things which are essential to put it alongside of rival communities North and South. It would be far wiser from every point of view, looking to the future as well as to the present, if we should begin at once a campaign for the building of a complete sewerage system, the repaving of the entire city, the enlargement of our water supply and the carrying out without further delay of other great municipal undertakings which are absolutely essential to the best interests of the community. In competition, as we must ever be, with the virile, active cities of the North and West and the ever-grow-

ing South, we cannot afford to maintain paving which would disgrace a country village, to be without a sewerage system and stand alone among the great cities of the world with such a disgrace attaching to us. There is no half-way ground possible. We must act, and act with broadmindedness, and act for the future, or else Baltimore will inevitably miss its opportunity.

Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on pages 74 and 75.

LEST WE FORGET.

Common sense must control the effort to turn to good and permanent account the present auspicious opportunity for the suppression in American politics of a sectionalism that has for 40 years hampered ethical aspirations and material energies of the country. We have apparently entered upon an era of good feeling, but in the width and breadth of Americanism thereby engendered depth of conviction should not be sacrificed, leaving but a hazy film to be tossed about by every passing wind. The promising situation does not call for the slush-mush-gush of sentimentality without reason and susceptible only to fleeting superficial impressions. Its possibility may be destroyed by sycophancy on the one hand or truculency on the other, by inane hysterics as well as by cold-blooded scheming. The cause is too vital to permit of the confounding of incidentals with fundamentals. No patriot would have unanimity at the polls. The approach to such a manifestation in one particular part of the country or the other, whether it be the South or New England, is just the thing that political sanity would now escape. Healthy discussion of public affairs is necessary for the maintenance of American institutions and the safe exercise of the nation's growing powers. There need be no dispute about broad foundation principles. But there must be differences of opinion as to the practical application of these principles if the country is to escape the oppression of oligarchy at one extreme or the depression of socialism at the other, to say nothing of the risk of anarchy as the finale of an unnecessary struggle between revolutionary radicalism and reactionary conservatism. The task is one to be accomplished not through professional reunionism which galvanizes dead issues under the pretense of burying them again for the thousandth time, not through a weakening of devotion to ideals because of the landing in safe retreat by the victor of complaisant statesmen standing on a political ebbside, not through a deadening of sensibilities by private or national "educational" doles however deftly sugar coated, not through forgetting that the President of the United States is essentially the servant for four years of all the people of the United States, to be

judged in history solely by his performance of his duty as such. The task of removing a long-standing curse from American politics, bringing party action to a higher plane, is one to be entered upon soberly, discreetly, advisedly and in fear of God.

WHITES IN COTTON-GROWING.

A correspondent of the Manchester Guardian, after a three-month trip through the cotton belt of the South, is convinced that the question of increased acreage depends almost entirely upon the temper of the negroes, "who are at once the most shiftless, contented, thriftless, happy people in the world." He says that the bulk of the cotton is grown by negro tenant-farmers, and that although for the distant future the capacity of the soil for cotton-bearing is practically unlimited, it will always rest with the indolent negro whether or not the South turns out enough cotton for the whole world. Three months' observation has given this correspondent an inadequate view of the situation. He does not seem to know that more whites than negroes are engaged in cotton-raising and that the disproportion is steadily increasing. Moreover, with this increase in favor of the whites, there is improvement in methods under the spur of education looking to a greater product per acre than a greater acreage. The well-known characteristics of the negro are a drawback upon cotton-growing. But it is a drawback that may be expected to diminish steadily.

CROWDING OUT THE NEGROES.

Referring to the movement of Italians to the South, the Minneapolis Journal, which tries to take a broad view of Southern conditions, shows how far astray good intentions may go when it says:

What will be the result of crowding the negro out of the agricultural-labor market by the introduction of a white laboring class? So far, it is said that the Italians on the plantations get along peaceably beside the negro and have little to do with them, but if the displacement develops into what the planters expect it will, and the negroes crowd excessively into the cities, there is no doubt that the negro question will afflict the Southern people in a still more acute form. There is danger, indeed, that a new racial conflict will ultimately develop between the Latin and negro races. In getting rid of negro labor on the plantations the South will have another race to deal with, which has a tendency to combination and a tendency to acquire land, and which may prove more intractable than the long-suffering negro.

Indeed, the Journal answers its own proposition about "crowding the negro out of the agricultural labor market by the introduction of the white laboring class" when it speaks in the same editorial of the drift of the negro labor to cities and towns, its growing inefficiency in agriculture and the losses in the cotton-picking season because of deficiency of workers; to the better work done by Italians, the economies practiced by them and to their tendency to buy farms as rapidly as they are able. If there is any crowding out of the negroes from agriculture they alone are

responsible for it. Thousands have undoubtedly left the farms because of higher wages obtainable in railroad construction, mining, lumbering, cottonseed manufacture and other industries, and other thousands have drifted to towns and cities under the spur of the natural instinct to live with the least exertion. Instead of being crowded out "the long-suffering negro" has been in demand by whites who, for a generation or more, have, in the absence of anything better, been obliged to put up with labor constantly tending to greater inefficiency under the influence of misguiding educational methods. The incoming to the South of whites aspired with the desire and purpose to become landowners at their earliest opportunity is a blessing. Unless the movement of negroes to Southern cities and towns on their way to the North and West is not checked, their places in the field will be permanently filled by whites the more desirable because they will not be content to occupy for long the dependent status which satisfies the average negro. In 25 or 50 years, according to circumstances, there may come a time when the negroes in some localities may begin to feel the competition of the more thrifty and more ambitious newcomers. Whether the negroes will then be crowded out will depend entirely upon the negroes themselves.

THE MOUNTAIN AGAIN IN LABOR.

The Rev. A. J. McKelway, late of the Charlotte (N. C.) News and now one of the Assistant Secretaries of that omnium gathrum in New York having the high-sounding title, the National Child-Labor Committee, has concluded his preliminary investigation of child labor in the South, according to the New York Times, and in speaking of conditions there he displays the same inclination to blunder among facts as he manifested in a thrilling career of 18 months "at the center of things" in daily journalism. He says, among other things:

The number of children employed in all Southern mills has increased greatly in the last few years. In South Carolina in 1880 there were 51,878 children employed, and in 1900 there were 95,363. Georgia employs 113,264 children—nearly as many as the entire State of Pennsylvania and more than the State of New York. The percentage of child labor in the South is four times as great as it is in the North. . . . The main trouble rests with the parents. The fathers will not work unless the children are employed also. In many instances the child is employed under a subterfuge. The mother works by the piece, and what her children do is credited to her, the children not appearing on the pay-rolls at all. North Carolina, Virginia, South Carolina and Alabama all have laws prohibiting children under 12 years of age to labor. There are very few colored children in the mills of the South.

The impression given by that paragraph is that the Rev. A. J. McKelway is assuming to discuss the employment of children in Southern cotton mills, whereas the figures quoted by him, which indicate that his preliminary investigation must have included a reading of special reports on occupations made by the United States census, deal

not merely with children employed in cotton mills, but with all persons 10 to 15 years of age engaged in what the census calls gainful occupations.

As a matter of fact, the majority of this class of minors in South Carolina and Georgia were engaged in agricultural pursuits, and of these nearly 70 per cent. were negroes. Of the 95,280 in South Carolina engaged in gainful occupations, 76,295 were in agriculture, 9206 in domestic and personal service and 8083 in manufacturing and mechanical pursuits. Of the 113,964 in Georgia engaged in gainful occupations, 89,843 were in agriculture, 15,118 in domestic and personal service and 6532 in manufacturing and mechanical pursuits. It may be suggested in passing that the great majority of these minors have under existing circumstances a much better opportunity for preparation for lives useful to themselves and the community than they may enjoy under any device of professional sociology, especially when the sociological propaganda is likely to involve the abuse of official figures in a way calculated to leave an erroneous impression upon the reader.

There were but 8110 minors under 16 years of age employed in South Carolina cotton mills in 1900, and but 4479 in Georgia cotton mills, instead of 95,280 and 113,964 in South Carolina and Georgia, respectively, as the Rev. Mr. McKelway's interview would lead the uninformed reader to infer.

Another point in the Rev. Mr. McKelway's statement is that "the percentage of child labor in the South is four times as great as it is in the North." We are inclined to believe that the Rev. Mr. McKelway must be uncertain in his own mind about the meaning of that statement. It is a difficult sentence even to parse. But the Rev. A. J. McKelway, with many other persons, is probably unaware that there is absolutely no basis for a safe comparison of child-labor ages in the South and the rest of the country, for the reason that in the comparative newness of child-labor legislation and the absence of such outrageous farces as compulsory school attendance, truant schools and juvenile courts, all breeders of perjury in a community, Southern parents among the working classes have not become adept in lying about their children's ages, as have parents in other parts of the country.

The employment in industry of children under certain ages is an evil which should be suppressed. But there is little hope for suppression, to the benefit of the children involved, under the auspices of the suggester of the National Child-Labor Committee or of his crony, the Assistant Secretary of the South. For the solution of the problem accurate facts must be presented. Their due proportion must be regarded. Neither of the young gentlemen now becoming professional sociologists seems capable of enlightening on that point, however excellent his intent may be. The paragraph quoted is but a specimen.

The country would be blessed if a law could be passed for the suppression of child labor in statistics and sociology.

Mr. G. R. Farnham of the Non-Perishable Timber Co., Evergreen, Ala., under date of November 25 writes:

Allow me to express my great appreciation of your excellent journal, and especially for its inestimable benefit to our Southland in making prominent her industrial advantages. I am a firm believer in the fact that the final redemption of the South is in her own hands, and that it will come in due time by the exercise of wisdom and making the right use of her own God-given resources.

NEW RAILROADS IN TEXAS.

The recent letting of several railroad contracts in Texas and the beginning of construction on them has directed the attention of railroad builders particularly toward the Lone Star State, and especially because of the number of new projects which are on foot there and for which charters have been filed. The most important new lines building are the extension of the St. Louis, Brownsville & Mexico Railway from Robstown to Bay City, 142 miles; the southward extension of 40 miles of the Texas & Gulf Railway—which is the new name of the consolidated Texas, Sabine Valley & Northwestern and Marshall, Timpson & Sabine Pass railways—and the Jasper & Eastern Railway, a Santa Fe proposition, from Kirbyville, Texas, towards Alexandria, La., for a distance of 50 miles.

All these roads are now being constructed, and in addition to the work thus under way their respective companies propose to build considerable more line. For instance, the St. Louis, Brownsville & Mexico, which opened its main line from Robstown to Brownsville on July 4 last, and which recently finished the Hidalgo branch, making more than 200 miles already complete, now proposes to continue the Robstown & Bay City extension to Galveston, perhaps with a branch to Houston, while a line will also be made to San Antonio, provided that circumstances prove to be as favorable as promised. Moreover, the Texas & Gulf Railway has in view the ultimate extension of its line to Sabine Pass, and in addition to this intends to build northward to Oklahoma. As for the Jasper & Eastern, which has just awarded a contract for 50 miles, it is chartered to build to Alexandria, La., with numerous branches, and current reports credit the Santa Fe with a desire to thus reach New Orleans, perhaps by an alliance with the lines of the Louisiana Railway & Navigation Co., formerly the Shreveport & Red River Valley Railway. These are the principal lines now under construction, with the exception of the Kansas City, Mexico & Orient Railway (chartered in Texas as the Panhandle & Gulf Railway), which is building its line northward from Sweetwater to join its road in Oklahoma.

Since the first of September there have been several new companies chartered in Texas which project railroads of magnitude, although thus far little has been done beyond the making of preliminary surveys. Among these are the Kansas City, Oklahoma & Houston Railway, chartered by Kansas City (Mo.) and Athens (Texas) parties to build from Lake West to Henderson, Texas, about 125 miles, and the Gulf, Texas & Northern Railway, planning to build from Sabine Pass on the Texas Gulf coast to Oklahoma City, about 400 miles, incorporated by people in Fort Worth and Marshall, Texas, and Logansport, La. Unconfirmed reports say that construction has begun. Another road is the Nueces Valley, Rio Grande & Mexico Railroad, incorporated to build from Aransas Pass to Carrizo Springs, Texas, and thence to Eagle Pass and Del Rio, continuing into Mexico and going via Chihuahua to Guaymas on the Gulf of California, making a line across the continent. For this survey are now under way in Texas. The line is being promoted by people in Carrizo Springs. Another very extensive project, in which Bonham and Dallas parties are concerned, and for which it is said French capital will be invested, is the Interstate Railway Co.,

which proposes to build from Galveston, Texas, to Duluth, Minn. The Colorado, Texas & Mexico Railroad, chartered by people in Abilene, Texas, is to build from Abilene to Llano, Texas, about 200 miles. The San Antonio & Rio Grande Railroad, another projected line about 200 miles long, is to go from San Antonio to Rio Grande City, Texas. The Northern Texas Construction Co. has also been organized to build a railroad from Canyon City, Texas, towards San Antonio for 150 to 250 miles, the parties interested in this being from Chicago, Ill.; Nashville, Tenn., and Amarillo, Texas.

Besides the lines projected by these new companies there are several propositions reported from existing roads. For instance, the Beaumont, Sour Lake & Western Railway has announced its intention of making a survey immediately after the Christmas holidays for an extension from Sour Lake northwest for about 125 miles. The Peach River & Gulf Railway, controlled by the Darlington-Miller Lumber Co. of Galveston, has taken a charter to build from Willis to Beaumont, 100 miles, and the Orange & Northwestern Railway is reported to have made a preliminary survey for an extension of 400 miles, while it is said that arrangements have been closed which insure the extension from Buna.

Much interest also attaches to the Trinity & Brazos Valley Railway, which built a line last year from Cleburne to Mexia, Texas, about 78 miles, and which some time ago announced its intention of finally building to Beaumont or Houston. San Antonio and Austin parties control this company.

As for the Rock Island system, about the only thing in prospect in Texas is the probability of completion of the extension from Amarillo to Tucumcari, N. M., work on which was suspended several months ago. The Dallas and Galveston extension appears to be abandoned, as President Winchell has just informed the Manufacturers' Record that the company is in no way planning or negotiating for the construction of that line. Perhaps, however, the Rock Island system will ultimately control the St. Louis, Brownsville & Mexico Railway, inasmuch as B. F. Yonkum, chairman of the board of the Frisco system, which is controlled by the Rock Island, is president of the St. Louis, Brownsville & Mexico Railroad, which is rapidly building up an important system of lines in the southern and southeastern part of Texas.

While the amount of railroad now under construction in Texas is comparatively small, the number of new lines recently chartered apparently gives the assurance that next spring the construction of much additional mileage will be undertaken.

VISIT OF ENGLISH SPINNERS.

The London Times, according to a cablegram in leading newspapers of the country, says that cotton manufacturers of Lancashire will probably accept the invitation to visit the South in which municipal authorities and business bodies have united. The plan of giving representatives of foreign textile interests an opportunity to become acquainted with the South as a cotton grower and manufacturer has been discussed for nearly three months, and the trivial opposition to it from shortsightedness and consequent misunderstanding on the other side have been as nothing compared with the hearty and hospitable spirit shown by the governors of Southern States, the mayors of cities and representative agricultural and

business organizations there. Leading railroad officials have expressed a willingness to co-operate for the success of the plan, and now nothing seems wanting but some indication from England of the number of visitors who may come to enable the South to organize for the visit and to arrange the program.

SAVING AGRICULTURAL WASTES

Mr. Samuel H. Brubaker, No. 8 Noel Block, Nashville, Tenn., writes to the Manufacturers' Record as follows:

Your publication covers the industrial progress of the South as no other does, but you leave untouched one of the greatest fields of wealth and sources of universal permanent prosperity the South possesses. I refer to the growing of fruits and produce of all classes, and particularly to the facilities necessary to render diversified farming and fruit-raising profitable on a large scale. I have made the study of these conditions, as it was impossible to secure reliable information in any other way, by a personal canvass of the field, over a period of six months of uninterrupted study and observation, and the expenditure of a large sum of money. These observations have included the small and large field of the grower, a personal scrutiny of his necessarily meager methods of ultimately reaching the consumer in the distant city, and the small return for the ideal adaptability of soil and climate that cannot be outclassed in any other section, and has extended through the vision of the middleman on up to the banking-house and financial investor seeking a place to apply his surplus funds. Cold storage and refrigeration is a theory to the majority of Southern business men. With quantities of produce rotting and wasting through low prices sufficient to meet their public debts, they begin shipping in for home consumption fruits and produce from Northern fields at prices greatly in advance of those at which they had sold a superior article a week before.

Though Mr. Brubaker has rather an exaggerated view of the situation, there is no doubt that his main point is well taken. There is still in the South a great field for the development of cold storage, of canning and of other means of utilizing agricultural products that now are wasted. This is a point which the Manufacturers' Record has again and again emphasized, and it is gratifying to know that in widely-separated regions the campaign for diversification in agriculture and for economic handling of farm products is having practical effect. But much still remains to be done in that direction.

The following is taken from the letter of Jos. R. Putnam, 27 Portland Block, Chicago, who has been advertising in the Manufacturers' Record for a little while:

Let me say that I value your paper highly. Your wide-awake outlook for whatever is likely to prove advantageous in new enterprises interests me very much.

In a letter to the Manufacturers' Record Mr. Alexander Helper, secretary-treasurer of the Commercial Association of Danville, Va., writes:

The Manufacturers' Record is equally sought for on our table, and the expression on all sides is that "it is one of the best and most deserving of all publications that we receive."

The Southern Farm Magazine.

The closing month of the year is considered by Col. J. B. Killebrew as a good time to review, for correction, wasteful practices on the farm. He therefore makes in the December issue of the Southern Farm Magazine some practical suggestions about waste in feeding live-stock, in keeping unfit cows, in pasturage, in soil preparation, in sowing meadows and in planting orchards. He especially emphasizes the waste to farmers in the habit of indecision. Prof. Andrew M. Soule writes of rural school improvement, the value of agricultural education, cereals in Missis-

Mississippi, reseeding land to bluegrass, truck-farming in the Piedmont, cabbage for dairy cows, stock-farming in the South, etc. "In Cotton Economics: From Field to Factory," a plea is made for the proper handling of cotton to the benefit of grower, merchant and manufacturer, while training in agriculture in North Carolina is treated by Prof. Charles W. Burkett. In the regular departments of the Magazine a variety of topics of interest to the specialist and to the general farm household are covered, immigration to the South being given considerable space.

The Southern Farm Magazine is published monthly by the Manufacturers' Record Publishing Co. Its regular price is \$1 a year, but under a special offer open for a short time a year's subscription may be had for 25 cents.

To Make Textile Machinery in the South.

Heretofore the cry has been "the cotton mills to the cotton fields." The natural trend of events following such a movement as this will be that of textile-machinery shops to the mills. The Manufacturers' Record has repeatedly pointed out that in the development of the cotton-mill business of the South there would inevitably be created a great cotton-mill machinery industry, just as the vast textile-machinery works of New England and of England have grown up around their cotton mills. The first striking movement in this direction is announced in a letter to the Manufacturers' Record from Mr. F. Stewart Wood, president of the Fairmount Machine Co. of Philadelphia, whose entire plant has been sold to the D. A. Tompkins Company of Charlotte, N. C. Referring to this sale Mr. Wood writes:

"This includes all the patents, drawings and patterns of the Fairmount Machine Co. for their different types of looms, dobby and harness motions, beaming, warping, spooling, winding, dyeing, sizing and other textile machines, and for all their pulleys, hangers, post-hangers, pillow blocks, wall brackets and boxes, angular, muley and vertical drivings, couplings, carriers, tighteners, grooved pulleys, spur, miter and bevel gearing, friction clutches and pulleys, freight elevators, lard and paraffine oil presses, etc. All this equipment will be transferred to Charlotte as rapidly as possible. The business was established in 1839 and has had an uninterrupted career, enjoying always the highest reputation and credit. A large part of the product of the company has gone to the South, and the business should be at home in its new location. The Fairmount Machine Co. follows the business in the hands of its new owners with the kindest interest and commends most heartily the D. A. Tompkins Company to all their friends."

Replying to a telegraphic inquiry regarding this purchase, the D. A. Tompkins Company wires us:

"We have acquired the entire business, patterns, patents and drawings of the Fairmount Machine Works, makers of looms and other textile machinery, dye-house machinery, transmission machinery and elevators. The business will be moved to Charlotte at once."

And following this with fuller details, Mr. D. A. Tompkins, president, writes:

"We have been latterly developing a shop to build textile machinery and cottonseed-oil machinery. The shop we are now operating is 182 feet long and four stories high. This is exclusive of the foundry. We are now manufacturing cotton machinery inclusive of the following items: Spinning frames, spoolers, reels, band machines, size kettles, drawing-in frames, shafting, pulleys, hangers and gears. The purchase of the business, pat-

ents, patterns, good will, succession and part of the machinery of the Fairmount Machine Works puts us in position to furnish a great variety of looms for cotton duck, weaving of dress goods and dye-house machinery, and shafting, pulleys and hangers and elevators. No one textile manufacturer in America can equip a whole mill, while in addition to what we did manufacture we add the Fairmount Company's business. We will be enabled to furnish a great variety of textile machinery, and it will be machinery for high-class products or for an advance in the manufacture of cotton in the South."

The D. A. Tompkins Company is now erecting a new shop, 75x300 feet, in which this Fairmount Company machinery will be built.

Thus one more step is taken in the broad diversification of the industrial interests of the South, and this section which has been building cotton mills so rapidly is now preparing to build the machinery with which to equip the cotton mill. This diversity of industrial development throughout the South is not in any way an injury to other sections. On the contrary, in the shifting of industries, where each finally finds its location at the most advantageous point, there will be developed a sounder condition of every industry of the country, and with the rapid expansion of the manufacturing and general business interests of the entire country every section will find abundant employment for all its capital and all its energy, and out of the intermingling of trade and the healthy development of every section there will come the best foundation for the broadest patriotism where sectional lines no longer mark dividing business interests.

Prosperity of Southern Iron Companies.

The prosperity of the iron trade means great things for the South. The enormous wealth of Pennsylvania and Ohio created out of coal and iron give some hint of the possibilities of wealth in the exhaustless coal and iron materials of the Southern States. Since the advance in iron commenced a month or two ago there has been a great advance in the stocks of all the important iron-making companies throughout the country, in which Southern iron companies have shared. The stocks of the Tennessee Coal, Iron & Railroad Co., the Sloss-Sheffield, the Alabama Consolidated Coal & Iron Co. and the Virginia Iron, Coal & Coke Co. have all shown a very marked increase, and as the public comes to a better realization of the possibilities of the South in iron-making the securities of such properties ought to rank with similar properties in the North. The capitalization of these companies, compared with the intrinsic values of their properties, is triflingly small in contrast with the enormous capitalization of Northern properties. If the Southern companies are to go through the same experience as those of the North they will sooner or later become so valuable that they will be consolidated and recapitalized on a far higher basis. Some day the New York Steel Corporation must control all of these Southern iron companies or else see grow up a rival of dominating power in the iron world because of the lower cost of iron-making in the South. It is to be hoped that the South will for a long time be able to control these iron-making interests in order to reap the great profits which must follow their development, but already heavy purchases are being made of their stocks for New York and European account, one international banking-house of New York alone having taken 4000 shares of Alabama Consolidated in the Baltimore market in one day recently.

The South and the Enrichment of the Nation.

During its career of 20 years and more the Manufacturers' Record has endeavored to keep before the country the idea framed for it by Hon. William D. Kelley of Pennsylvania, "The development of the South means the enrichment of the nation." With that object in view it has labored to the utmost to bring together upon a basis of self-respect and to their mutual advantage the capital of the country and the natural resources of the South, and, for the furtherance of their productive union, to antagonize every embarrassing influence and to encourage every manifestation for the good of the South, whether of the South or originating elsewhere. It has not confined itself to mere material things, although convinced that progress on all lines is dependent upon material prosperity, but has from time to time, as the occasion seemed to justify, had a word of disinterested and non-partisan suggestion to make to the South, to the rest of the country or to the country as a whole.

Under the sway of that custom the Manufacturers' Record published two weeks ago a couple of editorials from separate starting points, but with a common aim, designed to emphasize the necessity for the South to devote its best energies to the accumulation of the power that comes with wealth and for the South to be given the utmost freedom from unnecessary pressure in that task, that it might become a potent factor for the benefit of the whole country. They were inspired by a desire to offer a *modus vivendi* upon which may unite the conservative substantial patriotism of the country without regard to section for the removal of the main element of sectional irritation that has long been a drawback upon perfectly harmonious action for the material welfare of the whole country, and, at the same time, a most potential source of low-grade and demoralizing politics, to the detriment of business interests everywhere. They were written in the belief that broad statesmanship would overcome the politics which has given us a solid South for 40 years, that Mr. Roosevelt will be sustained in the exercise of such statesmanship by the Americanism of all sections, and that such statesmanship is needed to give American conservatism free play against the growing organizations of misguided discontent.

In that the Manufacturers' Record believed that it was but voicing the general opinion of business men North, South, East and West, without regard to party affiliations, and in order to sound that opinion the editorials were brought to the especial attention of merchants, manufacturers and other men of affairs in all parts of the country with the expressed hope that they would consent to the publication of their views upon the particular points touched upon in the editorials. The hope has been fulfilled. From divers quarters have been received the letters published in the following pages—letters which set forth on the one hand the reasons why an unnatural political situation has been compulsory for the South and the means for its remedy, and on the other the desire at the North and at the South that the remedy be applied. All the letters breathe the spirit of wonderful optimism about the future of the South, and most of those from the South show a readiness in that quarter to welcome a return to the historic position of the South in the public affairs of the country. The letters, together with kindred newspaper utterances, follow:

No Section of the World More Prosperous Than the South.

A. B. Farquhar, president of the A. B. Farquhar Company, Ltd., York, Pa.: "Your recent editorial articles with regard to the proper future place of the South in our national development and the proper way to secure that place are deeply interesting and ought to be widely read and pondered. It seems at first sight as if your advocacy of amassing wealth as the object most worthy of immediate pursuit were not setting your readers the highest standard of attainment, but that impression disappears on reflection. For the really significant point is not the wealth acquired, but the qualities developed in acquiring it—industry, energy, temperance, foresight, economy, all of which its acquisition necessarily presupposes. 'Wealth is power,' as you truly tell us, but rather because of the qualities it indicates than on its own account. In advising our brothers of the Southland to cultivate these, to be industrious, temperate, foreseeing, economical, you are not only recommending the best means of winning wealth, but at the same time the best means 'for the return of the South to its proper place as a national factor' in the interest of a true and salutary conservatism."

"That the desired restoration of the South, from nullity to the honor and influence which are its due, depends principally on itself cannot be denied. That it depends also, in considerable measure, on the attitude of other sections toward it can as little be denied. To win the respect of the Northern mind a large increase in Southern wealth would do much, and a development of the business qualities on which wealth-winning depends would do even more. It is true also, as you suggest, that the Northern mind is distrustful at present because it does not really understand the Southern. In fact, all the misunderstanding yet remaining between the two sides is due to imperfect knowledge. In the presence of more enlightenment it would vanish as frost under sunshine. It is impossible to become acquainted with the Southern people without learning to sympathize with their attachment to high social ideas, their family loyalty, their cordial hospitality, the reverence they accord to the 'grand old name of gentleman' and to 'honor that feels every stain like a wound,' and more especially their chivalrous courtesy toward the 'better half' of mankind. If the South has had much to learn from the North in business methods, in mechanical contrivance, in watching the markets and in all the things that make for worldly success—as is everywhere admitted—it may no less fairly be admitted that there has always been something important to be learned on this side of the Mason and Dixon line. What is needed on both sides is fuller knowledge; that we 'shall know, even as we are known.'"

"For a better understanding between the sections, based on mutual respect, no agency, perhaps, is more potent than commerce. The function of commerce is, in its way, a service to our neighbor, and unless we enter enough into his feelings to know his wants it is in vain for us to undertake to supply them. Some degree of

sympathy, therefore, enters into every sale and purchase, even though the service is not disinterested. The practical result is that those long associated with us as customers cannot easily become enemies. Not only are we anxiously desirous to satisfy them with the quality of the goods received from our hands, but we rejoice in their prosperity as insuring a stronger demand for our goods hereafter. In order that our Northern merchants and manufacturers may continue to prosper in their dealings with the South the South must prosper in its own business operations.

"The business prosperity of the Southland has long ago passed from the realm of flattering possibility to that of accomplished fact. The total value of its agricultural products, which the census reported as \$773,000,000 in 1879, reached \$1,354,000,000 worth in 1899, and this year can hardly be less than \$1,700,000,000, in which total the cotton crop is expected to figure for \$625,000,000. The value of this crop alone for the last five years has exceeded that for the five years just preceding by more than \$800,000,000. But the development of our Southern section has been by no means agricultural only. The gross total value of its manufactured products, for which the census of 1880 could report but \$478,000,000, appeared in 1900 as \$1,520,000,000. Adding to the present year's estimated figure the \$1,700,000,000 of agricultural products, allowing a reasonable estimate to the important and increasing production of Southern mines and quarries, and joining with them the section's contribution to the nation's forest product, the grand total for 1904 will exceed \$4,000,000,000, about treble the 1880 amount, while the population has increased but 60 per cent. The emigrant crowded out of Europe will find in our Southern States a home full of promise. Nowhere else could he live as comfortably with the same amount of labor.

"The South is optimistic, and has reasons so to be; the more so that this gain is not merely material, but appears in the mental and moral fields no less. There has been a most significant uprising in its literary activities since the dark days of the Civil War which is almost startling in its suddenness, and at the same time gratifying in the highest degree, to all interested in the progress of our entire united country. Names need not be mentioned, for they will at once occur to every reader. In the two fields of fiction, where a peculiarly interesting cluster of feminine writers has now come to give new brightness to our national constellation, and of history, quite uncultivated before by Southern authors, but now adorned by many distinguished names, that section of the country, once almost negligible—but for some such occasional aberrant genius as Poe (who, by the way, was born in Boston)—is now highly respected. It must be admitted that the South does not shine in public affairs as it once did. We could not expect to maintain the standard set up in the days when one scantily-populated State (grand old Virginia) gave the country so magnificent a quadrad as Washington, Jefferson, Marshall and Madison—the Father of our Country, the Declaration of Independence, the Supreme Court and its Constitution—to say nothing of noble statesmen high in the second rank—Mason, Edmond Randolph, Patrick Henry and the Lees—all living at the same period. Since the Age of Pericles the world has seen nothing like it, and even that age was not equal in statesmanship. America can never repay the debt of obligation it owes this galaxy of statesmen. It would be a practical impossibility to reproduce such statesmen, and it is therefore particularly gratifying to be able to point to a proof that the mental development and activity are still there, and only achieving their triumphs in new directions.

"The South has not had its choice in the recent presidential election, but as it has had nothing to be ashamed of in its course this year, so it has nothing to despair of and little to seriously lament in the result of the voting. For the magnificent triumph of Theodore Roosevelt, though not due in the least to any demerit in his antagonist, is due very largely to real merit in himself. He is honest, brave, sincere, straightforward, half Southern in blood and a combination of some of the best qualities of both sections. He is disposed—here I speak from personal knowledge—to find the true American spirit in all sections of the country and to honor it wherever he finds it. There is no portion of the world more prosperous today or more full of promise for the future than our Southland. To doubt the career of prosperity, now happily begun and destined to continue and widen, would be cowardice and absurdity."

A Broad Americanism for America.

Col. J. B. Killebrew, Nashville Tenn.: "I have read the editorial articles in your issue of the 17th of November on 'Power of the South' and 'A National Sheet-Ancor' with profit and pleasure.

"The public men of the South are neither in ability, influence nor moral worth what they were before the Civil War. The field of public service has not been inviting for the reason that all public questions have been looked at through a distorted medium. The influence of the negro in politics has been magnified and feared until questions of statesmanship or of public economic policies have been ignored. The Democratic party, once so powerful, has been the sufferer. It has been driven by every wind, whether favorable or unfavorable, that gave the least promise of reaching the harbor of official position. It has been guided by no fixed principles except those of negation. It has constantly opposed everything advocated by the opposite party, right or wrong. This opposition, in my opinion, has not been from the mass of the Democratic voters, but from the political office-seekers. Every intelligent Southern man knows that the Southern people were heartily in favor of building the Isthmian canal, but the office-seekers made it appear that they were opposed to it. Every Southern man knows that the great mass of Democratic voters would never consent to surrender the Philippine Islands, and yet these so-called leaders insisted that it should be made one of the paramount questions because the Republican party advocated the contrary opinion.

"The South can never be powerful again in politics until its prominent men are guided by the principles of right and not of prejudice; until they can discuss questions free from partisanship and act according to their best judgment.

"The men of the South who now take a deep interest in politics are not, as a general thing, the wisest or the best. The men of real power and of splendid abilities are engaged in the practice of the professions, in railroad service, in newspaper work or in manufacturing enterprises. With the class of leaders that we now have, with a few magnificent exceptions, there can be no advance in political thought in the South. Wherever a nomination is equivalent to an election, as is the case in most parts of the South, the men most deserving are those of too great a severity of morals to enter into competition with the pothouse politicians who adopt practices not in harmony with the highest principles of morality and honor.

"In the past the South has won a proud position in the world's history for its statesmanship. It may do it again when its public men adopt lines of policy that commend themselves to their judgment and sound sense, and not to their prejudices or passions.

"We want a greater breadth of statesmanship among the people of the South. We should sustain Mr. Roosevelt in every position that he takes looking to the building up of the whole country. We want a broad Americanism that will protect America for the Americans. We should not suffer our prejudices to blind us against our best interests and to obstruct the progress of the South."

Southern Suffrage Cohesion Explained.

John A. Faulkner, president of Board of Trade, Lynchburg, Va.: "If there was ever a time in the history of the South when every condition appeared to be favorable to its general development, that time is the present, for there is a wave of progress penetrating its length and breadth until all have felt its force. The observer looking southward gazes upon a new order of things. The practice, once common, for the retailer to seek his stores in the markets of the East and North is now obsolete, and the Southern distributor meets all demands. The cotton-producing section, which in years gone by held the balance of power in supplying the raw material, now is furnishing the world with the finished article. The wealth of her minerals, timber and agricultural products have taken the place of the resources of her former slave-enriched aristocracy. The scions of her first families, whose talents once gave proud prestige to the professions, have seen through the fires of adversity to take front rank in the mercantile and manufacturing world today. Forced by circumstances to lay aside the traditions that taught their children of a languorous ease, where eloquence on the hustings or bravery in the field was the highest ambition, they became sons of action and in the school of stern necessity learned the lesson well. With a wonderful adaptability they have conformed to new conditions until today as captains of industry they are not excelled.

"When a period like the present comes, with all its opportunities, such a people can be relied upon to make the most of it, and when the results are measured the share of the South will be found to be in proper proportion.

"With such boundless advantages opening up before this favored section the thoughtful contemplation of what the future has in store for it engages the attention of the conservative native observer, and he feels that much will depend upon the developments of the next four years. The material side of the forecast cannot be separated from the political, and the two must be considered together. In continuing to be solid, when the influences in every other quarter produced a contrasted result, with even greater unanimity, one conclusion as to the underlying cause must inevitably be reached. There was some agency potent indeed to possess the power to hold the South in line when the returns show beyond peradventure the effect everywhere else to be exceptionally different. In no section has the great prosperity of recent years been more gladly welcomed, generally felt and properly appreciated than in the Southern States. If satisfaction with existing conditions has contributed to make the continuance of republican administration so universally popular in the North, East and West, then it would seem that the remaining section has but poorly expressed her gratitude for the benefits received.

"The establishment of national banks with a minimum capital of \$25,000 has enabled the Southern planter to borrow his money at home on easier terms and under circumstances altogether more satisfactory than ever before. By the aid thus extended he can hold his crop to meet the market's rise. The advance in the prices of all he produces has placed him above the fear of his obligations. He farms with pride, and realizes at last his position in the body politic is becoming dignified. The influx of outside capital has multiplied manufactures to a remarkable degree, and only a start has been made. The development of coal and mineral properties has been startling, and as yet only the earth's surface has been scratched. The poor debtor class is becoming daily less numerous, and extinction seems to threaten him. From every viewpoint there is an upward trend in matters material. All of this has been accomplished under republican rule. The Southerner has known with much sadness the practical lack of the full dinner pail, and with the amelioration of conditions it would seem that there should be manifested a due appreciation therefor.

"If the cause for gratitude exists, the South may be safely counted on as not being lacking in proper feeling.

"A long, uninterrupted and intimate association with want has bred into her very marrow a deep desire for a permanent improvement of conditions, and no reasonable sacrifice to accomplish this end could be asked of her in vain.

"If other sections have demonstrated by their suffrage that their hope for the future is based upon the continuance of the present administration of our national affairs, they have arrived at this conclusion from causes more or less tangible to them and certainly convincing. If this be true, there is every reason to believe that the South, having the same sources of information, would naturally be impelled to do likewise, even at the cost of shattering long-established ideals.

"These facts admitted, the actuating principle governing the continued cohesion of the Southern suffrage must be sought for among possibilities that have forcefully appealed to the Southern mind as being fruitful of disaster, and the removal of this cause is the task the administration must address itself to if Southern serenity is to be restored and the abolition of sectional lines accomplished.

"In seeking for this cause that has crystallized this contrasted sentiment the new threadbare proposition of the position accorded the negro by the republican party is the only question that is worthy of consideration. The trusts, the tariff, expansion and various other popular issues, the politician to the contrary notwithstanding, are as susceptible of as much honest two-sided discussion in the South today as they are in any other section of the country. On the negro topic there is but one side. Eliminate this, and there will be found along all other lines one man thinking one way, another another. As strange as it may seem to the average Northern citizen, as difficult of comprehension as even Mr. Roosevelt himself may find it to be, the Southern man in any walk in life cannot swallow the idea of the social equality of the races. With the slightest tendency from any source to force the affirmative of this proposition, and south of the Mason and Dixon line will be found a failure to affiliate, even if such failure negatively involves every other consideration. As long as the colored sympathizers sought to befriending the negro by placing the ballot in his hands to establish the sound doctrine of representation without taxation, while a bitter pill, it was endured until a way was found to meet the exigency. That we cannot make him our social

equal is a fact that millions of our white citizens stand ready to verify, and in terms to quiet all argument.

"The Anglo-Saxon is practically the same wherever found. Touch him on the raw in Indiana or Alabama, and the response is closely related. If, by reason of environment, a section is exposed to provocation that calls for treatment without the sanction of the law, it certainly should not be criticised too severely by those who enjoy an immunity from the causes contributing to the State of legal irresponsibility. He who would justly judge must be a peer of the realm in which the cause arose and feel in some measure the influences that moved the accused.

"The most advanced exponent of the doctrine of social equality of the races, if he be honest, has but to abide in the South for a brief space to be convinced of his fallacy. Thousands of Northern men, imbued with the idea of creating a social parity between the races, have moved South to scold and stayed to sympathize. No honest exception has ever been found. As many more as come will come and do likewise. To those who have stayed at home and remote from contact with the conditions have formed contrary opinions, let this thought find lodgment and a step will be taken in the direction of creating conditions in the South under which her ballots can be cast for the greatest good to the greatest number. Like tables of longevity upon which the life insurance companies figure to a fraction the average life of any thousand men selected indiscriminately, so may the standard of character be gauged. The South claims by this standard to be no better, and certainly no worse, than any other section. Without outside intervention she can solve her race problem, and once satisfied that this solution will be left entirely to her, with neither assistance nor hindrance from beyond her borders, there will be no further difficulty and the sovereignties to the south of the Potomac will resume their proper place in the roster of the policy-framing States of the nation.

"Let the action of the present administration establish unequivocally a respect for the sentiment of the white South, that must maintain at any cost the integrity of its institutions, and thereafter when the ballast is needed to keep the ship of State on a conservative keel the men and the mentality will not be found wanting when the call for the Southern quota is made."

Mechanical, Not Political, Power Needed by the South.

F. L. Stephenson, of Messrs. Whitney & Stephenson, bankers, Pittsburg, Pa.: "Permit me to express my high appreciation of your editorial entitled 'Power for the South,' in the current number of the Manufacturers' Record. I would like to hear of the business men of the South printing that editorial in postor form and placing it in conspicuous places in every county-seat in 'Dixie.' As a Pennsylvanian with large financial and industrial interests in the South, I would deem it a good investment to contribute toward a fund for giving the sentiments therein expressed the widest publicity.

"It is amazing that the undeveloped natural resources of the South have been so long overlooked. In my opinion, the fault lies largely with the people of the South. Nature was so prodigal with her gifts and placed them within such easy access, as compared with less favored sections, that the South has not prized them at their true value. Hence they remained undeveloped by local capital, and for lack of this initiative failed to attract outside capital.

"One of the keenest observers of the progress of nations placed first in the order of development the accumulation of wealth, 'because without wealth there can be no leisure, without leisure there can be no knowledge,' and knowledge is power. The impression may be erroneous, but it nevertheless prevails in the North, that in a measure the leading men of the South have sought knowledge and power to the neglect of material development; that they cultivated the philosophical to the exclusion of the practical, and gave the pleasures of polite society precedence over the toils of accumulation, thus reversing the order of social progress. A friend of mine once likened the South to a pampered child of fortune who had never felt the necessity for labor, who could not appreciate his rich blessings because always surrounded by them, and who allowed his fine estate to fall into neglect while dreaming of the glories of his ancestors. This impression, I am glad to say, is being dissipated by the closer relations and better knowledge of the people which follow the investment of Northern capital in Southern enterprises.

"I am entirely sincere in my belief that the next 10 years will witness greater progress in material development and greater return on capital invested in the South than in any other section of the United States. This belief has been backed by several millions of dollars invested in North Carolina by the firm of which I am a member. Several years ago we reached the conclusion that the kind of 'power' most beneficial to the South was not political, but mechanical, and that if this could be provided cheaply and applied to the great Southern staple sections of the South would become as dominant in the textile trade as Pittsburg is in the iron trade or as Minneapolis is in the flour trade. It would seem to me as logical, for instance, for Pittsburg to ship its coal, coke and ores to Great Britain for conversion into iron and steel, and then to buy those products for our use, plus the manufacturer's profit, as it is for the South to ship its cotton thousands of miles to Europe or hundreds of miles to New England, and buy its supplies of textiles, plus the manufacturer's profit and double costs of transportation of raw and finished material. If the West should export its wheat and flour to France and Austria and import its French rolls and Vienna bread, it would parallel the course of the South with its great staple.

"But as you point out, cotton is not the only product of the South. Its timber, granite and various minerals and their accessibility furnish the foundation for industrial greatness and wealth. We feel no little pride in the fact that we have been the pioneers of Pennsylvania capital in one section of the South, and we believe that the power plant of the Whitney Company, located in the Yadkin valley of North Carolina, together with the development of granite quarries, mines and railroads by the same company in that section, will prove to be merely the forerunner of a still greater stream of Northern capital in the same direction.

"It is my opinion, strengthened by that of men of large international affairs, that the completion of the Panama canal will give a tremendous impetus to the development of the business of Southern ports and to the inland commerce of the South generally. You are better equipped with statistics than I am, and you therefore know that our exports of manufactures of cotton to China last year approximated \$14,000,000. With the development of cheap power applied to cotton manufacturing in the South, and with the short cut to the Orient provided by the canal, the possibilities of future trade in that direction are incalculable.

"Congratulating you upon the good work already accomplished by the Manufac-

turers' Record in behalf of the South, and joining you in the hope that that section may soon return to its proper place as a national factor, I remain yours truly."

Get Busy—Forget It.

George R. Brown, secretary of the Little Rock (Ark.) Board of Trade: "I have read with pleasure and with personal benefit your editorials in the Manufacturers' Record of the 17th inst., and regret that every business man in our country, North as well as South, cannot have the privilege of reading them. It is particularly gratifying to see conditions handled so impartially and intelligently by a trade journal, a commercial publication, for such at its best is the Manufacturers' Record. True, we are well advised that there has been an election with an attendant landslide, and in Arkansas, as well as every other Southern State, there be hundreds of business democrats who either refrained from voting at the last election or cast their votes for the republican candidate—the greater number by far, however, of the two simply refraining from voting, quietly remarking 'that the country is prosperous, and I am willing to let well enough alone.' They are now willing to 'forget it,' and to even 'forget' the much-talked-about 'Booker Washington incident' and the 'Indianola postoffice,' and I might add the 'Crum case,' if the President will 'be good' hereafter. As one of my newspaper friends recently said, 'there is greater prosperity than ever before known 'way down on the Sewanee river,' the 'Old Kentucky Home' has a new roof, and the 'corn is full of kernels and the colonels full of corn.' So the spirit of 'forget' is in the very air, and the general desire is to get rid of 'gold-brick politicians,' of which the South has far too many, and of which Arkansas is a shining light. Indeed, we have more than our share of mediocre officeholders who by the presence of a limited number of men of brilliant intellect and broad perspective throw them into the limelight to a still greater disadvantage. The political map of Arkansas now shows republican spots, and this fact is suggestive of the fact that the business men are taking at least a negative interest, rebuking the men who work with their mouths, preaching demagoguery and prating twaddle about the 'octopus' and the 'plutocrat.' The South has been driven back to the 'inner breastworks,' and there is now really no 'national' democratic party, but, on the other hand, a sectional party. The business men of the Southwest see this. They have had enough of the oratory of Mr. Bryan, and still remember the fallacy of his early teaching that as 'silver goes up cotton will go up,' and silver ascended while cotton dropped to five cents a pound. The business men want silence from Mr. Bryan and also a chance to 'forget' his glittering sentences that resounded like firecrackers as he shot out his charges against 'commercial influences of corruption,' the 'slimy octopus,' etc. They have no patience with the mouthings of Watson, and still less with Debs and his dangerous socialistic teachings. The Southern business man of today, with wide-open eye and a clear conscience, has rebelled against 'tinhorn politics,' and is ready to prove to the world by his activity that the South is the undeveloped wealth center of the United States. He is too full of politics now to talk as he feels. He knows the wealth of his land is undeveloped, and is bending his energies in that direction. He regrets the division of the country on lines that make the South solid, but that cannot be prevented until the whole country recognizes the right of the Southern people to regulate its social conditions. The greater United States, it is believed, will consent to this in future, and President Roosevelt will recognize greater problems for his head and hand than giving heed to small-fry politicians, even in his own party, who for selfish ends may endeavor to misdirect his efforts. The time is at hand when the thoughtful, active, conservative business men of the whole country should get together. The need is great. The socialistic vote and the vote handled by the populists sound an alarm that should be heeded by those who love this country. It is time to take reckoning when Geo. Fred Williams cries aloud in Massachusetts for a parcels post 'to defeat the express company trust,' while in cities all over this land the business men are protesting against this very 'parcels post,' alleging that it would place the means in the hands of the great department stores to crush the business of the merchants in the smaller cities. The false gods the democrats have been worshipping should be sent 'to the tall, uncut timber' and be made to remain there until the South has time to 'get busy,' when she will show to the world the richest section of the Union. The development of the South, taking Arkansas as an example, has really but begun. With its fields of coal, zinc, bauxite, and its hills of kaolin and fuller's earth, its mountains of marble and granite, its millions of acres of timber land, a few years hence will demonstrate that one of the States now the least known will be the center of wealth and power. For the year ending September 1, Arkansas' agricultural products were worth \$135,000,000, her fruit and berries \$10,000,000 and her lumber \$105,000,000, a total of \$250,000,000. The next year, with less political palaver, these figures will be doubled. Our business men are getting busy. They will see to it more vigorously hereafter than ever before that work is done for Arkansas. There will be more work and less talk. There will be railroads built and factories erected. Everybody will know that the balance of trade will be not only in favor of Arkansas, but that of the cities of the State as well will show up on the corner of the balance-sheet in black ink instead of the ominous carmine hue. There is and there should be a determined struggle for better things, a greater development and a higher life. In this grand movement Arkansas will be found leading the way."

Government to Protect and Promote Material Prosperity.

John W. Fries of Messrs. F. & H. Fries, Winston-Salem, N. C.: "I am in receipt of yours of the 18th inst., and have carefully reread the editorials referred to. I had already read them with care, pleasure and approval when our copy of the Manufacturers' Record came. As you say, we want 'less attention to fine-spun theories,' less declamation about 'principles,' less political and sociological discussions. What are fine-spun theories, principles and discussions worth unless they lead to the material happiness and contentment of the people? What is democratic government for except to protect and promote the material prosperity of the people? We often hear that such questions are low and sordid, and that there is nothing important except 'life, liberty and the pursuit of happiness.' The people know for a fact that their lives and liberties are secure, and they think that with the 'spellbinders' the pursuit of happiness is the pursuit of office. If they seek happiness in the honor and emoluments of office, why should we not seek happiness in the pursuit of material prosperity?

"A large majority of us in the South have felt we had no choice but to vote for the democratic candidates in local affairs, but I venture to say that the number of those who were really glad to see Mr. Roosevelt re-elected is much greater than was registered for republican electors. We are afraid to trust local affairs to Southern republicans, we would be afraid to trust national affairs to national democracy; but we admire Mr. Roosevelt, and trust him more than we do his party. No party as a party

is so very much better than another, but when a really strong, honest, able man comes to the front he is stronger and better than his party. It was so with Mr. Cleveland, it is so with Mr. Roosevelt. Mr. Cleveland was too great a man to be spoiled by his personal popularity. We believe that in this respect Roosevelt is as great as Cleveland.

"The recent democratic campaign was essentially an attack on Mr. Roosevelt personally as being arbitrary and unsafe. The people simply did not believe this, and further, they did not believe his critics were sincere, or trustworthy themselves if sincere, because four and eight years ago Mr. Bryan was safe enough for these same critics.

"I do not understand your position to be the advocacy of republicanism in the South, or of any particular party, but that we should bury all old dead issues and 'act in the living present,' and in this position you have my heartiest sympathy."

Nothing to Be Gained by Harsh Criticism.

C. C. Hovey, manager American Vacuum Can & Machine Co., Bainbridge, N. Y.: "We have your esteemed favor of the 18th instant to our president, Mr. J. W. Sturtevant, referred to us for reply. We believe first in the fatherhood of God, universal brotherhood of man and America for Americans. We believe in reciprocity in trade and that our statesmen should legislate for the good of all the people and all sections. We do not believe that there is anything to be gained by harsh criticisms of one section against another or of one set of men against another.

"The writer heartily concurs in what was said by the Hon. William D. Kelley of Pennsylvania, that the development of the South means the enrichment of the nation, and from what little personal knowledge we have of some portions of the South we believe that there are no greater opportunities lying idle or waiting for the genius of men to come and develop them than lie in the Southern States. If those that have been reared in that section could only realize the vast opportunities that lie there asleep in mineral wealth they certainly would be inspired to take hold and help develop them.

"We congratulate you as publishers of the Manufacturers' Record. We esteem it highly and wish you great success in your undertaking."

[Birmingham News.]

Certainly the South has every reason to be encouraged for renewed efforts in the work of material development. With the prosperity which now pervades the whole territory even a presidential election has no notable effect. The Southern people are too busy developing their resources to worry about national politics. No wonder the recent presidential election was looked upon as a mere incident in our national history and was practically dropped as a subject of conversation in a few days after the results were announced. The people of the South are engaged in too profitable a work to have time left for political agitation.

Natural Effort Must Be Joined to Natural Advantages.

H. L. McKee, vice-president of the Board of Trade and Cotton Exchange, Meridian, Miss., and president of the Mississippi Business League: "I have read with careful thought what you have to say in the matter of Southern development and the relation that the President may exercise in connection with it.

"I am persuaded that the remarkable endorsement of the administration has a lesson for the South, which, if we will learn now, will send us on the road of prosperity beyond all calculation.

"The 'Power for the South' lies in its inherent natural wealth, but natural advantages are worth nothing without natural effort.

"My observation has been that the accomplishment of any such result can only be brought about by organized effort. To this end I undertook the work of securing a federation of all commercial bodies in Alabama (my native State), and for two years, as president of the State Commercial Association, I gave much time to it. Latterly I began a similar work for this State, and the promise is that we shall secure in time a strong body of commercial and industrial men.

"I do not think we should anticipate any other course for Mr. Roosevelt than one of statesmanship, which will recognize the importance of Southern prosperity as much as any other section. Why should we? Our need is more of self-devotion and less of self-assertion; less politics and more business. I had occasion to discuss at the meeting of the State Commercial Association at Anniston, Ala., in the summer the question of organized effort, and particularly in relation to the inherent strength of the South. It was shown that there was one element of power, namely, cotton, which, if conditions were made to conform, would give the owners of it, and original owners, too, the ability to dominate the financial world in a decade.

"Captain Hobson followed me, and added three other native sources of wealth, namely, iron, coal and cement, and emphasized their importance in the national work to be done at Panama. If I may say anything for the public eye, it is that we lack nothing in the South but organized effort."

Sound Men of Affairs Deeply Engaged in Their Own Business.

William G. Cochrane, mayor of Tuscaloosa, Ala.: "The result of the presidential election was not unexpected by the thinking men of the South and they entertain no fears about it. The Southern people are loyal and true to the government, and they cast their votes as they believed to be for the best interests of the entire country, without personal feeling, but calmly and deliberately. Having done this and having discharged their duty, they accept the decision as final for the present and consider the incident closed.

"In the school of poverty and adversity great lessons are learned and great men are developed. I have resided in the South all my life and am now 56 years of age. During the war between the States I witnessed many terrible things. I was 18 years of age when the fearful struggle ended. I had been born of rich parentage and was left bereft of everything but health and a partial education. I had to begin the battle of life unaided, with every adverse influence around me. Thousands of other men were in the same condition. It looks like a dream when I reflect on the times of the then and now. We tried everything. We began the battle bravely and have kept it up unceasingly. Very few men had capital. Banks were poor and merchants were unable to extend credit. Money could not be obtained upon land. Real estate was no basis of credit, and rich lands rented for more than they could be sold for, the renter relying upon the crops to pay the rents at the end of the year and leaving enough for him to live on for another year. The national government added to the trouble by the national banking system in providing by law that no national bank should lend money on real estate, thus striking down the only basis of credit left in the South. By untiring energy and unyielding determination the

South gradually began the work of self-support. Today it is in a most prosperous condition, notwithstanding the fact that each year millions have gone out from the South to enrich the North. All the Southern cities, counties and States had to issue immense amounts of bonds bearing high rates of interest, and all of these bonds were owned by Northern and foreign people, to whom each year the interest was paid promptly, thereby carrying the earnings of the South to the bondholders outside. All the insurance companies of the country had their homes outside the South for many years, and those companies have been enriched by the premiums paid by the Southern people each year. To illustrate, the city in which I reside has a population of less than 7000 and a bonded debt of \$125,000, upon which for many years it paid 7 or 8 per cent. annual interest to men who live in the North. Other cities in the South have been doing the same thing. In my city more than \$70,000 is paid annually for fire and life insurance and it all goes away. The same applies to the freight and express charges; all of this money leaves us.

"Yet the South, in spite of all, is prosperous today far beyond other parts of the country where no such heavy burdens are borne. I feel that the men of the Southern States are entitled to respect and honor for what they have done and for what they are doing to build up the business and industry of this country. In my home city the bankers at one time had but little money and charged 12 per cent. for it. Now there are four prosperous banks here, with a combined capital of more than \$1,000,000 to do business with, and money is easy at low rates of interest. The country is full of money and every branch of industry is prospering. All this has come about through the labor and wisdom of Southern business men.

"The people of the North are good people, and we do not object to their customs and fancies. We always give them a cordial welcome when they settle among us. I am not so sure that they would treat us as well as we treat them. We have now reached a place of safety. What we have come to us by our labor and saving. We are prepared to march along with any country in the world, feeling that we can take care of ourselves under all circumstances.

"The people believe that there is a great line of truth and right in all the relations of life. And to find that great line should be the object and aim of men and governments. It looks foolish to a sensible man to remain in debt in order that he may enable some other man to get rich. In this view of the case it is the duty of the United States government to pay its own debts and cease to borrow money simply for the purpose of affording a market for money for other people. The government can pay its debts and it should do so. In that way only can a check be put upon many abuses that now exist. If a man lives by borrowing and never tries to pay back he soon becomes an object of contempt. It is so with the government. The great wealth of the country is buried in government bonds, and if it were not for the immense natural resources of the country the bondholders would dwarf and cripple its industrial development. But the money made and used in actual business is now so active and immense that it is controlling the country in spite of the fact that the bondholders would hold it back. The government is powerless to check the speed of industrial activity, and has to stand and see business men control the machinery of politics and everything else in the business world. In fact, the business men are stronger than the government because the government owes money to them. They are driving the government. In other words, it is like a wagon running away with a horse. The remedy is to pay the debt and be independent.

"As to correcting the evils arising from trusts, there can be no better remedy than for some steps to be taken looking to placing all banks and trust companies upon their own responsibility, securing their credit by actual cash, rather than by bonds of the government upon which the government is paying interest to the very people who should be paying interest to it. If either the Democratic or the Republican party should put a plank in its platform demanding the payment of the public debt in full it would open up the subject of consideration and no one could give a sound reason why this should not be done. It would be a long step to readjustment of the financial problems which are disturbing us. If either party would insert in its platform the principle that the United States government has always been a white man's government and always will be, the race question would be eliminated from politics just as it has been in Mississippi, Alabama and other States. The negro is all right in his place. He is satisfied in the South, and he enjoys every advantage in the way of protection to his property, his life, his liberty and his religion. Millions are spent to educate him by the Southern States, whereas few thousands, sent from Northern States and boasted of, are not a drop in the bucket by what is done for him here by his former masters.

"The South feels no bitterness towards the Republican party or against Mr. Roosevelt. The real sound men of affairs here are deeply engaged in their own business, are striving to build up and develop their country, and are ready to join with them from all over the United States in this endeavor. If a solid South is ever to be broken it will be when the rest of the United States shall accord to her people the right to manage their home affairs in the same way that all the other States in this Union are allowed to do. The Southern business man has the training and the energy to succeed and he has succeeded. Never before has there been such a spirit of activity and enterprise among farmers, miners, manufacturers and merchants and bankers of this country as exists today. We will do our part of the hustling, and the rest of the world had better begin to hustle or it will be left far behind."

The Way to Destroy Blighting Sectionalism.

J. A. Jeffrey, president and general manager of the Jeffrey Manufacturing Co., Columbus, Ohio: "Yours of the 18th received, also copies of editorials from the Manufacturers' Record, which I have read with a great deal of interest. They are right to the point, and will undoubtedly do a great deal of good in the way of laying a foundation for bringing the North and South into closer friendship and relations of amity and good-will than has heretofore prevailed, simply because the people of these sections haven't known each other as they should and as they will know each other if such timely sentiments as are contained in the editorials from your paper are taken up and sent broadcast by other influential papers of the South, East, West and North. I know of no better way to break up this blighting sectionalism than in the way you propose.

"The South country contains elements of greatness in statesmanship and the patriotism of its warm-hearted people and great wealth in the productiveness of its lands and the undeveloped resources of its mines; this latter will follow rapidly when

shown in the request, and thank you for it, I desire to thank you more earnestly for the editorials.

"Such editorials, appearing in the Manufacturers' Record at this particular time, can but be productive of good.

"In my opinion, they outline a policy and course of action for the South at once wise, practical and possible. Local political conditions, which built up a 'solid South,' thereby making a defence against ignorance and negro supremacy, have now almost entirely disappeared, and if the economic factors lying comparatively dormant in the South can be quickened by push and industry into practical utilities, and the so-called burning political questions be forced to give place to rational, economic ones, the 'solid South' and that for which it stood will be broken up in the general prosperity and good feeling. You truly say that 'money is a recognized power.' It is, perhaps, the cheapest power attainable, but by and through its aid and influence come those higher powers of intellect, character and energy, which make a people great and important. To get money is an incentive to have something, and to have something is an incentive to be something.

"Of the three primary economical factors in the creation of wealth, viz., land, labor and capital, the South may justly claim two of these in a degree not surpassed in any other section of the Union. The value of her land, with its climate, fertility, lumber and minerals, is indisputable, and her labor is perhaps more tractable and satisfactory than in any other section.

"The matter of capital in the South has been the perplexing question in every large industry and enterprise, and that this factor has now become a fixed entity and becoming more and more adequate is due in a large measure to the articles appearing from time to time in yours and other valuable and reliable journals, setting forth so forcibly the possibilities of the South. The country is prosperous, and, in my opinion, there is no cause to fear that it will be otherwise during the present administration.

"I reiterate that such editorials appearing in the Manufacturers' Record are well timed, and will be received as such by the great mass of thinking business men throughout the country."

Business Men Sick and Tired of Politics.

Eugene Anderson, secretary of the Chamber of Commerce, Macon, Ga.: "I have for several years devoted myself to newspaper work. My acquaintance with the business men of my community caused me to become interested particularly in all those things which the public-spirited commercial man advocates. It has been my observation for several years that business men, the men who stand for the material prosperity of the community, take very little interest in local, State or national politics. I sometimes wonder if more than 10 per cent. of the people read the political editorials to which so many of our leading Southern papers devote so much valuable space. As an evidence that the people are sick and tired of politics, one might refer to the small number of otherwise qualified citizens who register for our elections. No one who stops to consider the matter will fail to approve all that the Manufacturers' Record has said about the necessity for the Southern people and Southern newspapers to work more for the commercial prosperity of the South and leave her political destiny as a secondary consideration.

"The Manufacturers' Record has set an example that might well be followed by other publications that are devoted to the interests of the South. The tide of migration is flowing this way at a rapid rate, and the South now has an opportunity to become rich and powerful even beyond the dreams of her ante-bellum statesmen."

The Responsibility for the Solid South.

J. G. Anderson, president of the Commercial Club, Rock Hill, S. C.: "I am glad to note that you are using your influence, through the Manufacturers' Record, to inspire the patriotism of the entire country with the hope of removing the main element of sectional irritation that has long been a drawback to perfectly harmonious action for the material welfare of the whole country, and at the same time a most potential source of low-grade and demoralizing politics.

"The South is entering upon an era of prosperity unheard of, and within the next 10 years will move further forward, industrially, than it has in the past 100; and while it is desirable to promote this much-desired end by the removal of what is known as the 'solid South,' yet that time will never come as long as there is a 'solid North,' whose newspapers 'cuss' and discuss everything Southern from an ignorant and prejudicial point of view. They persist in dealing with the so-called negro problem until they have almost made it a reality. But few egotistical Yankee editors will be capable of getting that idea in their heads, preferring to assume a high seat in the synagogue and preach, among other things, social equality—coming down once in a while to dine with their associates. So long as they make something out of nothing—the negro problem—just so long will the South remain 'solid' and saw wood. If they think they can change matters by meddling with our affairs or by criticising us, let them go ahead. The responsibility for a 'solid South' will be at their door.

"McKinley, by his statesmanlike treatment of this part of the country, was causing some of the old-time democrats to consider the advisability of voting for what they considered the best interest of the entire country, rather than blindly support any measure or any man who stood for white supremacy, while the present occupant of the White House, by the Booker Washington incident, the Mississippi postoffice affair and the Charleston custom-house travesty, has done more than all of the balance of the country to insure a solid South. That his great love for the negro, as shown by these and other incidents, is all a pretension 'Private Smith' would no doubt be willing to testify.

"The Northern press as a whole is unfair to this part of the country. If a lynching or a riot or anything of that sort happens, first page, top of column space goes at a premium, with a yard or so of editorial comment, mostly unfavorable. But if a court composed of white men adjourn out of respect to the memory of a dead negro, or the mayor of a city appoints a committee of prominent white people to attend the funeral of a negro, no mention is made of it, yet clippings from papers containing these notices are mailed direct to a few of the 'fire-eaters,' who kindly acknowledge receipt of them and then hunt the waste basket.

"The Southern people will work out their own salvation with fear and trembling, and will solve the so-called negro problem, when there will be no 'solid South' to bother with. Perhaps many democrats in this immediate section would vote the republican ticket if they were not afraid that the negro would again come to the front in politics. So long as that is the case, every white man who deserves the respect of a yellow dog will vote the democratic ticket, no matter whether it is for the best interests of the country at large or not. The 'solid South,' therefore, is not a question for the South-

ern people, but must be solved by our Northern friends, who can do a great work by assisting us in working out our salvation by keeping their mouths shut and their fingers out of our private affairs.

"We are in first-class condition financially, and it is our desire to leave politics and politicians alone and work out our industrial problems, and in so doing we shall discharge our duty to the entire country and serve it better than by being embroiled in political discussions.

"The Southern people are big enough and broad enough to support Mr. Roosevelt in the exercise of broad statesmanship, and earnestly hope that his administration of the affairs of the nation for the next four years will be crowned with success. But they do not want any more of his negro doctrine, and if he wants their good-will and co-operation he will profit by past mistakes."

Social Conditions Disturbed by Demagogy.

Walter G. Cooper, secretary of the Atlanta Chamber of Commerce, Atlanta, Ga.: "So long as the North listens to demagogical attacks on our civilization I think the South will remain solid. These attacks are not merely political, but they disturb social conditions to such an extent that political considerations are not sufficient to counter-balance the evil they do."

For Less Newspaper Talk, Less Politics and Fewer Elections.

S. B. Cary, of Messrs. Castner, Curran & Bullitt, Roanoke, Va.: "The wonderful industrial development and activity of the South cannot fail to attract the attention of the whole country. The production of raw materials and the growth of manufacturing industries means wealth and power for that section. I do not think the business men of the South are paying much attention to politics or to the question of sectional feeling; in fact, I think that less newspaper talk, less politics and fewer elections would soon eliminate the question of sectional feeling. It is generally understood that many of the politicians of the present day are working for their own selfish aims."

Promoting the General Welfare of the Nation.

J. C. Stubbs, traffic director, Southern Pacific Company, Chicago: "I am in receipt of your letter of the 18th instant; subject, the adoption of a *modus vivendi* upon the part of the people of the South that will have for its end the rehabilitation of the condition of the inhabitants of the Southern States, creating a more harmonious attitude towards and closer relations with the commercial and industrial resources of the East, North and West, thus promoting the general welfare of the nation. In my judgment, every well-meaning citizen of our common country will approve and pursue along just and reasonable paths the object of your editorial in the Manufacturers' Record, issue of November 17, 1904."

Two Good Things.

Hon. T. T. Ballenger, Tryon, N. C.: "I want to congratulate you on your editorial in regard to the result of the presidential election. It was good. I endorse every word of it. We want more work and less talk about politics. I have finished gathering my crop and it was good; the best I have ever had."

As Viewed by Daily Newspapers.

Comments in daily newspapers suggested directly or indirectly by the editorials in the Manufacturers' Record include the following:

[New York Sun.]

The South has developed into a great manufacturing region. Agriculturally, its prosperity in the best days of slavery has been utterly eclipsed. In many respects its present condition materially, even industrially, is better than that of any other part of the Union. In none are the prospects of development brighter.

So great is this prosperity and so restless was the activity which brought it about that it has come to pass that the best intellectual and organizing abilities in the South have been directed almost wholly to its propulsion rather than to the field of politics, in which once they expended the preponderance of their strength. But now it is time for them to return to national politics and escape from provincialism.

"Optimism," as a Southern gentleman especially interested in this development and informed with regard to it said to The Sun yesterday, "reigns throughout the South." It would be as astonishing as it would be ungrateful if there was not such a prevailing sentiment. The cotton crop in the last five years has exceeded in value the five preceding crops by a billion dollars, and the cotton of the South is now bringing about \$650,000,000 a year. Even in 1890 the total value of all Southern agricultural products was only \$773,000,000; this year it will exceed \$1,700,000,000. Add to these the manufactured products and the output of the mines, and the total value is now increased to \$3,500,000,000, as against only \$1,100,000,000 in 1880, though meanwhile the population has increased only about 60 per cent.

The South is no longer dependent on the West for its corn, but is raising its own supply, with the consequence that the enormous sums which it obtains from its cotton will hereafter remain in the South.

That is, the South is now rich, and it will grow steadily richer. It needs no compassion, and it is too strong, too self-contained to need to put itself in any attitude of political opposition as a measure of self-defence. The time has come for its emancipation from subjection to any particular party, and for it to assert itself as a conservative force in American politics.

The day for any possible justification of the solid South has passed, and its unrestricted ability and temperate counsels are needed in the settlement of the great national political and economic questions which are before us.

[Birmingham News.]

Certainly the South has every reason to be encouraged for renewed efforts in the work of material development. With the prosperity which now pervades the whole territory even a presidential election has no notable effect. The Southern people are too busy developing their resources to worry about national politics. No wonder the recent presidential election was looked upon as a mere incident in our national history and was practically dropped as a subject of conversation in a few days after the results were announced. The people of the South are engaged in too profitable a work to have time left for political agitation.

[Augusta (Ga.) Chronicle.]

As a stimulant to these ends the "landslide" may be a blessing in disguise. It has opened a great many eyes, exposed a great many shams and taught many valuable, practical lessons.

The sagacious people of the North and papers like The Sun recognize these facts.

The South has been a long time getting on her feet, and in the face of unprecedented handicaps, but she is standing erect, and will make history henceforth of a startling and practical character.

[Columbia (S. C.) State.]

The Manufacturers' Record gives a bit of sound advice here: "If our newspapers from Maryland to Texas would for the next year or two cease political and sociological discussions and bend their energies to the fullest awakening of the whole people to the necessity of untiring energy and work; if our schools and colleges would give somewhat less attention to fine-spun theories and proclaim day in and out the dignity and power of work and the fact that only through work can this be realized by the development of the South's undeveloped resources; if our people of every class, rich and poor, learned and unlearned, want to see the South hold the position which is within its power to hold, as the dominant business section of this, the dominant nation of the world, they must prove by their works through the material upbuilding of the South the intensity of their desire. Let us turn from profitless political discussions; let us cease to bemoan, as so many Southern papers and Southern people do, the lack of power on the part of the South in the political world, and let us give our thought and energy to the improvement of agricultural conditions, to efforts to turn the tide of immigration to this section, to the utilization of our vast timber supply in the thousand and one woodworking interests for which it affords an opening and in which we now so largely depend upon other sections." And we would add the suggestion that as political discussion decreases that argument for popular education and for the fair and just administration of the law be increased. Southern people need bemoan nothing which it is not in their power to remedy.

[Norfolk Virginian-Pilot.]

In an able, forcible and timely editorial appearing in the current number of the Manufacturers' Record, the attention of the people of the South is again called to the necessity for their concentrating every effort and bending every energy to the development of the enormous resources and wealth-creating potentialities possessed by this section, if they would see the South increase its power in the business world or its influence in political activities. After pointing out the immense advantages possessed by the South over other sections of the country in the matter of natural resources and the fact that we are now squarely on our feet by reason of the prosperity which higher price cotton and other agricultural products have brought us in recent years, the Manufacturers' Record says that if we do not avail ourselves of this opportunity and these advantages to increase our material prosperity more rapidly than less favored sections, it will be proof positive and convincing to the outside world that we have not the inherent strength of character, the energy and the wisdom possessed by other sections. * * * Surely these suggestions and this warning are timely and to the point, and they should be taken to heart by every individual and every interest desirous of seeing the South again assume that dominant and commanding position in the affairs of the nation which it once held and to which it can again aspire with every reasonable expectation of attaining it. As we have said before, a splendid opportunity is at hand. It only remains for the people of the South to avail themselves of it. That they will we have not the shadow of a doubt.

[Roanoke (Va.) Times.]

It is quite safe to assert that too much politics is a trouble from which the South has reaped a full share of harm. Largely this has been a matter of necessity, and due to civic and suffrage conditions imposed upon Southern States as result of the war. Now, however, that the first and inducing cause for such undue attention to politics has been removed through suffrage reform, the character of advice proffered by the Manufacturers' Record takes on peculiarly timely and forceful nature.

As touching particularly upon conditions in this State, we would say that one of the best antidotes for the "too-much-politics" disease lies in reducing the number and frequency of our elections. Virginia has one every fall, which is just twice the number that is necessary. As we pointed out the other day, by fixing the time of electing State officers as identical with presidential elections, and choosing members of the State legislature and congressmen at the same time, the beneficent result would be accomplished of reducing the number of our elections just one-half. That sort of relief is affordable, and, in our judgment, the people are entitled to it. We repeat that with fewer elections a vast stride would be taken by this State towards the wholesome end pointed out by the Manufacturers' Record.

[Dallas (Texas) Times-Herald.]

Dismiss dead issues and imaginary evils and get busy. Eschew sectional prejudice and build up the waste places. It is better to be a builder than a whiner; more profitable to think of the future than grieve for the past. The South is destined to be the manufacturing section of the Republic, and the demand of New England for free raw material shows that the competition of Southern cotton mills has convinced the New England manufacturer that rivals at home are more to be feared than the British and German millowners.

[Hartford Courant.]

The Baltimore Sun is another journal that is hoping the South and the President will get together. "The rainbow of the promise of better things is plainly to be seen," it says. The Manufacturers' Record of the same city, a journal that goes into every business community between Chesapeake bay and the Gulf, is impatient for healthier political conditions. "It is not first nature for the South to present a solid front in politics," says this contemporary, "and after the experience of the past 30 years the South should be freed from the pressure compelling it to manifest what has been forcibly made its second nature. Such relief would permit the real men of affairs in the South to dominate its political action." Pointing out that for years past thousands on thousands of white Southerners classified as Democrats have been in their hearts territorial expansionists, gold-standard men and protective-tariff men, the Nashville Banner expresses the opinion that the political solidity is abnormal, unnecessary and ineffective. "If the whites of the South were aligned in parties according to their opinions and convictions concerning strictly party questions there might be less complication of the negro problem and more prospect of securing the right kind of sympathy and assistance in the North," suggests the Tennessee contemporary.

[New Orleans States.]

It is evident, or should be evident, to those who give the matter careful consideration that the surest and quickest way for the South to become a power in the political

affairs of the nation is to withdraw from national politics and devote for a period of years all her brains and energy to the fullest possible development of her enormous wealth-producing resources. This thought, we believe, must have been uppermost in the mind of the editor of the Manufacturers' Record, for in a recent very able and interesting article he urges upon the Southern people the necessity of concentrating every effort in the direction mentioned if they hope to see the South increase her power in the world of business and politics. There can be no question that the Southern people have the opportunity and the advantages to vastly increase the material prosperity of their section more rapidly than less favored parts of the country, and if they fail to do it they should not complain if the world accepts the fact as convincing proof that they do not possess the energy, character and wisdom which distinguish the people of the North and West. * * * We regard these as most wise and timely suggestions, and they should be followed by every individual and every interest desirous of seeing the South assume again the dominant and commanding position in the affairs of the nation it held 50 years ago, and which it will surely attain if our people will hold themselves aloof from national political contests, allowing the North to monopolize that particular arena, and devote themselves most earnestly to the great work of upbuilding their section of the country and advancing as rapidly as possible its material prosperity. We can rest assured that with wealth and immigration will come the power the South now lacks and which is all that is needed to make her a great factor in the affairs of the nation. A few years of absolute political independence and hard work will suffice to make her again the dominant section of the Union. The opportunity is at hand, and it only remains for the people of the South to avail themselves of it. That they will do so we have no reason whatever to doubt.

[Knoxville Sentinel.]

Following the Civil War, with the long period of reconstruction that paralyzed the energies of our people, the South believed that its ultimate prosperity lay in the direction of settling the great political problems that presented themselves. Those questions are now settled, and Southern men of observation and broad ideas are not so wedded to the "solid South" idea as they formerly were. The solid South has been encroached upon, and it is only a question of time when this region will discard the sectional ideas that once fettered it in many ways to take on a national spirit of political tolerance and business enterprise that must redound not only to its own welfare, but to the welfare of the nation. We are out of the swaddling clothes of sectionalism and provincialism. This is our country and our flag, and the time is coming when Southern statesmanship will again direct national affairs, if it cannot dominate them as it did in the beginning of our national life. Yes, the South is optimistic from every viewpoint.

Reasons for New England's Industrial Growth—VII.*

[Special Correspondence Manufacturers' Record.]

Boston, Mass., November 26.

Although the weaving of woollens is as old in New England as the settlement of the colonies, and constitutes today an industry next in importance in the textiles to cotton alone, and New England keeps up a lead amounting to the production of more than half the woolen goods made in the entire country, the value of the woollens falls some \$60,000,000, or more than 30 per cent., below that of cotton. It seems to have been an industry subject to more vicissitudes and perils of financial disaster than cotton, notwithstanding the fact that there have been many notable successes and that great houses have existed throughout a long term of years, at least one, the Hazard's Peace Dale Manufacturing Co. of Rhode Island, having been in uninterrupted operation for 100 years. Statistics would appear to indicate that the woolen industry had been a conspicuous victim of unfavorable legislation almost from the beginning, and recently and especially so while the Wilson tariff was in effect. From an average importation of 126,000,000 pounds of wool under the McKinley tariff, the Wilson bill, which put wool on the free list, witnessed an average yearly importation of 272,000,000 pounds of wool, with a record-breaker of 351,000,000 pounds the last year the law was in effect. Under the Dingley tariff the importations fell for the next three years to an average of 117,000,000 pounds, and for the past three years they have averaged about 168,000,000 pounds. With the repeal of the tariff on wool there was a change to an ad valorem tax on woolen goods, with the result that under the Wilson tariff there was an average annual importation of \$47,000,000, an increase over the McKinley tariff years of \$16,000,000 a year,

while the importations fell under the Dingley tariff, when practically the McKinley provisions were restored, to an annual average of less than \$15,000,000.

However one's habit of thought may lead him to interpret census figures, there would appear to be no reason for doubt that tariff tinkering had much to do with the disasters in the industry which followed the radical changes noted. While the wide fluctuations in the price of raw wool must be noted, the abnormally high prices of 1899 being followed by a collapse which brought ruin to many of those engaged in the trade, the boom was the result of a world-wide speculative craze, and was in nowise related to local tariff conditions. The Wilson bill, however, following the unsettled conditions existing from the time it became known that there would be a revision, seems to be clearly defined in its workings, and can hardly be termed other than an unmixed evil in which no American interest benefited, with the possible exception of some dealers in imported cloths. Although manufacturers and wool dealers took advantage of the act to stock up on free wool, yet foreign manufacturers likewise rushed in vast quantities of lower-priced goods, with which the shelves of importers were crowded, and through the peculiar operations of an ad valorem tax and the large latitude it affords for elastic valuations the local manufacturer found himself no better off, in the long run, than he had been under previous conditions. As for the consumer, it is declared to be well-nigh impossible to determine what, if any, benefit inured to him under free wool. In attempting to tabulate statistics for a series of years the difficulty of finding an article of manufacture which remains unchanged throughout any great period leaves no basis by which exact comparisons may be made; but so far as it can be determined, it is quite freely admitted by disinterested investigators that the ad-

*This series of articles bearing upon New England's industry is intended as an inspiration for the South.

vantage to the consumer is practically a negligible quantity, and whatever advantage might have accrued was "absorbed" between the manufacturer and the dealers.

Right now there is heard in the newspapers, particularly of the anti-protection complexion, a considerable clamor for a revision of the tariff, with a removal of the duty on wool, hides and other raw materials, and in favor of Canadian reciprocity, etc., and in many quarters it is maintained that the phenomenal success of the democratic candidate for governor of Massachusetts is indicative of a demand by the people for tariff revision. There are many varieties of opinion on this subject, but it is frequently pointed out that if the result of the elections in the country contains any germs of a real revolt against the republican principle of protection, how is it that a republican legislature was elected in Massachusetts, a republican legislature with a democratic governor in Missouri, the same thing in Minnesota, and not a solitary democratic candidate to the Michigan legislature, while Roosevelt, whose principal platform plank was "we are going to do things as we have been doing them," made a record-breaking sweep of the entire North? I have made some inquiries of men of various views, and while it may be true that a considerable sentiment exists here favorable to the manufacturer's dream—a revision of the tariff such as would admit raw materials free and tax manufactured articles—yet, knowing the disturbance which always attends congressional action on a tariff, the practical suspension of many lines of activity in the interim and the impossibility of securing any new tariff that is not a compromise and inevitably unsatisfactory and injurious to a number of interests, I believe there is a widespread feeling in New England favorable to the doctrine of "stand pat" and "let well enough alone." I have heard it declared that for all sorts of personal reasons enough republicans to have elected him voted against Bates merely as a rebuke, and that it was no part of their intention to bring about his defeat—simply desiring to cut down his vote. There will probably never be a clear exposition of this matter, whatever may be the fate of Douglas when he comes up for re-election next fall, but it certainly does appear to the unbiased observer that there is hardly enough of a shower in the Douglas entre to stampede the friends of the Dingley tariff to cover.

Facing all the vicissitudes which have attended the woolen industry in New England, I have serious misgivings as to the extent of the inspiration which New England's experience provides for the South in this line. Requiring a much more costly plant, more intricate machinery and more skilful help for the operation of a woolen mill than for a cotton factory, it would seem that the day must be far distant when the South can afford to largely step aside from the development of its cotton industry, which has almost illimitable possibilities, and which is, by every token, its very own, and engage in a business which to a large extent will have to be built up almost from the ground. Even if it were not true that wool is always the point of attack of tariff revisionists, so much so that when, battered and mangled and repudiated by Cleveland, the Wilson bill finally became a law, its author ejaculated, "thank Heaven we got wool on the free list, anyhow!" and even as far back as the tariff of 1816 cotton goods were protected by a specific duty of so many cents a yard, while woolsens were abandoned to an ad valorem fate, the wool man's days appear to have been, if not short, quite full of trouble. As the woolen center of the country and the home of the greater

part of the industry, it would seem that New England ought to be a prodigious raiser of sheep, and yet the truth is that a marked decline in the number of her flocks has occurred. There are no more than 1,250,000 sheep in New England now, when, to be in keeping with old England, there should be 20,000,000 here.

Theoretically the entire South is an ideal place to raise sheep. John Lord Hayes, for many years secretary of the National Association of Woolen Manufacturers, of Boston, prepared in 1877, at the request of Alex. H. Stephens, Gen. J. B. Gordon, Senator Benjamin H. Hill, Senator John T. Morgan and a number of other distinguished Southern statesmen, a pamphlet on "Sheep Husbandry in the South," which became a part of a message by President Hayes to the Senate and attracted wide attention at the time. In it he maintained the great adaptability of the entire South to sheep-raising, and he quoted letters from men in every Southern State, most of which were favorable to his views, with the general proviso that the sheep-killing cur must be eliminated. Whatever boom may have been started by this agitation does not appear to have endured, possibly because the worthless cur did survive. Whether the present world scarcity of wool and consequent high price may result in a revival of the sheep-raising industry, in the South as elsewhere, remains to be seen, and just what part an increase in the local clip will play in the way of stimulating the establishment of new woolen mills in the South cannot be foretold.

It would appear, however, that for the present there would be in the South a more inviting and a more expanding field in the line of hosiery and knit-goods making, in which cotton has in recent years made such notable inroads on wool. By the census of 1900 it was shown that in the last decade there had been a falling off in the United States in wool used in hosiery and knit goods amounting to some 3,700,000 pounds. At the same time there had been an increase in cotton used amounting to more than 135,000,000 pounds. The total amount of cotton used in the manufacture was approximately 209,000,000 pounds, costing \$25,766,510, as compared with 17,953,907 pounds of wool, which cost \$5,262,135.

In this growth the South is already taking a notable part. The census of 1860 showed three establishments of this kind, all in Kentucky. None are shown in the South by the census of 1870, and but one in the census of 1880. In 1890 there were 22 reported, while by 1900 the number had grown to 71, the capital from \$647,000 to \$3,523,000 and the wage-earners from 1500 to 6200, the cost of materials from \$460,000 to \$2,800,000, and the value of the products from \$973,000 to \$5,000,000. Twenty-four of the establishments were located in North Carolina, 16 in Georgia, 15 in Virginia, 6 in South Carolina, 4 in Tennessee, 2 in West Virginia and 1 each in Alabama, Louisiana, Mississippi and Texas. Although every New England State is represented in the industry, Massachusetts largely leading, the New England total is less than \$18,000,000 out of \$95,000,000 for the entire country, the bulk of the manufacturing being done in New York and Pennsylvania, with approximate totals of \$36,000,000 and \$22,000,000, respectively. It is significant that in the Southern hosiery and knitting mills less than a total of 500,000 pounds of every kind of wool was used, while of cotton there were used 16,585,000 pounds.

As to the value and importance of the woolen industry to New England, as well as to any section, and as to the part the woolen industry and allied lines have

played in the industrial development of New England, it is not my intention in this presentation to make a slighting estimate. The woolen industry was the pioneer of all of them, up here as everywhere, for after having eaten mankind must find something to clothe himself withal, and as in the beginning there was little or no cotton known to New England, every household became a producer of woolen cloth. While in New England there was a paternalism that enforced industry in the household and thereby stimulated the establishment of commercial manufactures, the same conditions of local activity and personal provision prevailed all over the young nation, so that when woolen manufacture had later on acquired the dimensions of a genuine boom, and the census of 1810 shows a product worth \$25,000,000, the South was very well represented, Virginia, North Carolina and Kentucky making a particularly good showing.

While originally the entire work of making clothing was altogether performed by members of the household, there was gradually introduced the neighborhood fulling mill and afterward the carding machine, and then the factory. The first fulling mill in the colonies was built at Rowley, Mass., so long ago as 1643. The first woolen mills were established at Hartford, Conn., in 1788, and in them was made the cloth which formed the suit that Washington wore at his inauguration. These mills did not long continue, however, and to Arthur and John Scholfield, Englishmen, is ascribed the fame of having been the fathers of wool manufacturing in America. They began at Byfield, Mass., in 1794, with such machines as they were able to construct from their knowledge of English inventions, and by the introduction of the carding machine, as well as the fulling mill, and the addition of the spinning jenny and the loom, all under one roof, the American woolen factory came into existence. In England to this day the carding and combing is a separate and distinct industry, likewise the spinning, the weaving and the dyeing and finishing. Each system has its advocates today, it being claimed that by specializing the various features greater skill and economy in production is secured, but manifestly early conditions, greater distances of centers and transportation costs were responsible for the departure from the English system here, and there is no indication now of the abandonment by the American manufacturers of the system established.

While England was pre-eminently the pioneer in the invention of fundamental machinery for both cotton and woolen spinning and weaving, there have been marvelous improvements by American inventors. In 1826 John Goulding of Worcester, Mass., invented a new type of carding machine, which has been described as "not a step, but a flight," and to which all the carding machines of the world owe their present improved efficiency. George Crompton, founder of the present house of Crompton & Knowles, introduced the power loom for fancy wools, and his house is today the leader in the manufacture of looms for woolen weaving. Likewise E. B. Bigelow of Boston has done more for the carpet business of America and the world than any other man. He first in 1844 adapted the power loom to the weaving of ingrain carpets, and later he invented and patented the power loom for weaving Jacquard, Brussels and Wilton carpets. His also are the inventions for weaving tapestry Brussels and tapestry velvet carpets.

All sorts of developments have come from the application of American inventive genius to the various forms of woolen

manufacture, until today no finer or better machinery is used anywhere in the world in woolen manufacture than in the American mills. In some lines, like broadcloths and other fabrics requiring slow weaves and much care, there are foreign products with which American goods are not competitors; but in nearly all the other lines American manufacturers have made such a pronounced advance that there is a steady displacement of foreign-made goods by the product of the American looms. Thus in 1870 the total value of imports of woolen manufactures for consumption was \$35,032,628 out of a total consumption of \$234,165,731, while in 1900 it had fallen to \$15,620,487 out of a total consumption of \$311,310,909. The percentage of imports to total consumption in 1870 was 15, while in 1900 it was only 5.

Since 1870, when it was first notably in evidence in this country, there has been a vast advance in the manufacture of worsted cloths, the capital invested increasing from \$10,000,000 to \$132,000,000 and the value of the product going from \$22,000,000 to \$121,000,000, and in all except the finer goods America takes a conspicuous lead. In the worsted suitings and overcoatings the United States was shown by the census of 1900 to be producing 91 per cent. of the total home consumption. All kinds of carpets of unexcelled weave are also being made now by American manufacturers, and in addition there are rugs, braids, novelties and various other articles that go to swell a total of large proportions.

Lawrence and Lowell, in Massachusetts, and Providence, in Rhode Island, are the greatest centers of woolen manufacture in New England, although woolsens are made in many smaller cities and towns all over the section. Plymouth, still redolent of the landing, has a prosperous woolen mill, in addition to cotton mills, tack factories, the largest cordage works in the country, etc., and woolen mills are scattered all over New England well-nigh from Penobscot to the Harlem river.

The most notable effort in woolen manufacture here is that by the American Woolen Co., an organization formed during the depression caused by the Wilson tariff. Although including some 30 different mills, and having an authorized capital of \$65,000,000, this aggregation is not a trust in the ordinary acceptance of the term. The American Woolen Co. bought the various establishments, but in some cases paying all cash and permitting the old owners to retire altogether. In other cases a proportion of stock was paid, but the integral parts of the combination became merged into one corporation, and the economies which have been introduced have made the venture a successful one. The records indicate that there have been issued preferred stock to the amount of \$20,000,000 and common to the amount of \$29,150,000. It is a somewhat difficult matter to ascertain just what degree of prosperity attends the operations of woolen mills here at this time, but the fact that the American Woolen Co. pays 7 per cent. dividend on its preferred stock and gives assurances of a forthcoming dividend on the common stock may be regarded as an indication of a fair degree of prosperity.

A feature of the textile industry of the country which may have an element of interest to the South is the development of silk manufacture in the United States within recent years, in which beginnings have already been made by the South. There have been various attempts to introduce silk culture in this country, and at times a veritable silkworm craze has raged. In recent years, however, America

has been content to buy its raw silk from countries where people have more time on their hands than American laborers have, and so China, Japan and Italy furnish the bulk of the raw silk the United States buys today. But so pronounced an advance in the industry of silk manufacture has occurred in this country within recent years that whereas the total value of the silk products of this country was \$87,000,000 in 1890, it had increased to \$107,000,000 in 1900, and the domestic production formed 70 per cent. of the total consumption. During the last 10 years every weave, article and quality known to mechanical weaving or applicable to power-loom weaving has been manufactured in the United States. So rapid and extensive has been the development of the industry in the United States within recent years that this country now consumes more raw silk than France, which, though still leading in the value of her silk manufactures, consumes but 9,000,000 pounds of raw silk per annum, while the United States consumes 9,760,777 pounds, and New York city holds first place among the raw-silk markets of the world, Shanghai alone excepted.

Incident to the growth of the silk industry mills have been established in all the New England States except Vermont, Connecticut leading with 21 mills and Massachusetts following with 13. Pennsylvania leads the country, however, with 72 mills, and New Jersey is second in the United States, with 29 mills. Since 1888 there have been six silk mills established in the South, three in Virginia and three in North Carolina. The Virginia mills, located at Petersburg, Fredericksburg and Norfolk, had \$594,359 capital invested in 1900, employed 518 hands and manufactured a product valued at \$981,680. The North Carolina mills at Wadesboro, Fayetteville and Roanoke Rapids represented a capitalization of \$130,376, employed 265 hands and reported a product worth \$135,354.

With the great improvements in all silk looms, including an adaptation of the Jacquard, and with the increased prestige American silk fabrics enjoy, there would seem to be a very promising field in this line for development in the South.

The spinning of linen was an ancient industry in the colonies, going back to the earliest times, but it has never advanced far beyond the household stage at any time, and is not showing hopeful signs of great development today, although a warp of linen with a woolen wool produced in colonial days a fabric which literally wore like iron, so that a suit of clothes would last a lifetime, and although in many old families there are heirlooms of linen handkerchiefs, towels and underwear spun and woven by the maternal ancestors of this generation, no attempt to establish linen manufacture on a commercial scale has ever been successful in America. Great sums of money have from time to time been invested by daring manufacturers in constructing plants for the manufacture of linen fabrics in this country, but all such attempts have failed. It is too laborious a process to prepare the flax, in the first place, so that the farmer will raise anything else in preference, and thus a sufficient supply of raw material is not available. The world's experience seems to establish the fact that linen manufacture is the one textile destined to remain segregated in a few localities like Holland and Ireland, where the fiber is grown on the spot, where the moist climate is peculiarly adapted, and where the help has acquired an expertness born of generations of experience. Moreover, linen is the one textile the consumption of which has not materially increased with the growing perfection of textile machinery. The

quantity of linen fabrics made today is scarcely larger than that of a century ago. Other fibers, less difficult to handle and more susceptible to cheap manipulation, have continually encroached upon its uses. The principal demand which is being met by American manufacturers today is for linen thread, linen carpet yarns and toweling. Threads and yarns have been made by American manufacturers for some years, and latterly a number of cotton manufactories have engaged in the production of linen towels. For this purpose linen yarn is imported, the takings for that purpose having amounted in the census year of 1900 to 1,500,000 pounds. It is possible that still further developments along that line will be made, although it is unlikely that yarns will be obtained otherwise than by importation.

In all the products of flax, hemp and jute, Massachusetts leads every State, producing a fourth of the country's output. The New England States contain 39 of the 141 establishments of every description in the United States, while there is a suggestion in the fact that the South contains 22 such establishments. If the attempt to introduce towel-making in the cotton factories proves entirely successful, it may be expected that a large development of the industry will ensue. As to the other fibers, a large question is opened up. There has always been extensive experimentation with every sort of fiber, including the cotton stalk, and there is no telling what the future contains in the way of the development of fiber manufacturing in the South.

The dyeing and finishing of textiles is a branch of the industry which will doubtless be largely increased in the South as time goes by. New England has 72 of the 298 establishments reported by the last census, with a capital of \$31,000,000 out of \$60,000,000 invested in the country at large. In the States of the South there were 10 establishments reported, with a capital of about \$500,000 clearly indicating that here is an industry to the development of which the South may very advantageously devote attention.

ALBERT PHENIS.

New England's Pre-eminence.

[Worcester Evening Post.]

Those that have claimed New England's pre-eminence in the industrial world to be due to the enterprising character of its inhabitants are told that the inhabitants of other localities have been enterprising, too. They are reminded also that many sections of the West have been settled by New Englanders that worked even harder than their parents and their ancestors, and yet failed to distinguish themselves above those that went out from other Eastern States. There must be, then, some other reason to account for New England's superiority in so many different ways.

Albert Phenix in the Manufacturers' Record for October ascribes our pre-eminence largely to "clear grit" triumphing over all obstacles. He cites other reasons, however. It is a fact that nothing succeeds like success. In the colonial days the people of New England, having few large and fertile farms, like those of the Middle States, took up manufacturing and have kept at it ever since. In the century and more that has elapsed manufacturing has spread all over the country, but the capital invested has been greatest in New England. Our climate, our sea breezes and the necessities of our surroundings have greatly aided us, but even more perhaps has been the ready capital, and, what was for many years an object of no small importance, our splendid water-power.

Still another element to contribute largely to our superiority has been the quality of many of our immigrants. Me-

chanics in the Old World, oftentimes the best in their class, were attracted by the prospect of better wages, and naturally came to those cities and towns where industries had already been established like those at home. By this process of selection the best hatmakers, shoemakers, weavers and the best employes in many other occupations became located in New England. Their children, gifted in similar ways of inheritance, and accustomed to see skillful work done and learning early to perform skillful work themselves, grew up to take their fathers' places. They did not have to battle with cyclones, blizzards or the Indians, like those on the frontier. There were no rich farming lands offering alluring prospects like those in New York and Ohio. They "stuck to their lasts," and not a few of them became inventors. To this day a patent is issued every year to one out of every thousand persons in Connecticut.

Another way in which the necessities of their situation were a benefit was the former fashion of making clothing, shoes and innumerable other articles at home. In 1810, when the first census was taken, the Southern States imported nearly \$11,000,000 of the \$25,000,000 worth of cotton and flax manufactures in the United States. The New England States imported only \$7,000,000. They could not afford to pay for factory-made goods. They made their own by their own firesides.

That the increase in the growth of our industrial operations continues appears from the fact that the total amount of manufactured products in New England was 25 per cent. greater in 1900 than in 1890. That of the Southern States, not including Maryland and the District of Columbia, was 67.6 per cent. While the value of New England's manufactured product was, however, \$591,393,397 more than that of the South, the value of the raw materials was only \$328,472,326 greater than that of the materials the South used. New England had \$640,291,869 more capital than the Southern manufacturing concerns employed, and the wage-workers numbered 291,476 more than those of the South, while the number of establishments in New England was 26,315 less than those of the Southern States.

From these figures we see no danger of New England losing her pre-eminence. As manufacturing establishments in the Carolinas and Georgia increase, the quality of the Northern factories continues to grow finer. Southern mill competition will never crush us.

The South in Competition With New England.

[New Orleans Picayune.]

Several years ago the Picayune, with a view to instructing our Southern people as to the natural resources and advantages for manufacturing possessed by them, sent Mr. Hargrove, an enlightened and practical member of its staff, to study the industries of New England.

The results of his studies were printed in the Picayune, and were given a wide circulation throughout the Southern States, and his intelligent elucidations and practical demonstrations, in which Southern capabilities were compared with those of the North, assisted no little in the development of our home resources, with the result that Southern manufacturing has grown into very considerable importance.

The Baltimore Manufacturers' Record, which has ever been devoted to the moral, intellectual and material development of the Southern States of the Union, has recently been printing an interesting series of articles showing how New England, with its barren and rocky soil and severe and inhospitable climate, has, despite

those natural disadvantages, become noted for the number, value and productiveness of its industries, the high degree of its educational progress, and the great amount of the accumulated wealth of its people.

The object of these studies is to show the people of our Southern States how such great results are accomplished under great difficulties, and how, with our superior advantages, if they be properly used and improved, our States can be made the richest part of the country.

The fact remains that although New England has only an area of 62,000 square miles and a population of 5,500,000 as contrasted with the Southern States, which have an area of 827,000 square miles and a population of 23,000,000, yet on her industrial rockbound soil she has created industrial interests producing nearly \$2,000,000,000 a year, against \$1,400,000,000 a year for the entire South. Massachusetts alone, with an area of only 8000 square miles, or nearly one-fourth of the size of South Carolina, one of the smallest Southern States, has an industrial development which until a few years ago equaled that of the entire South, and even today, with all the advance which the South has made in cotton-mill interests, Massachusetts still has more cotton spindles than the 14 Southern States.

But there is a still further significant fact that New England has no coal mines, no considerable iron mines, no cotton fields from which to draw the fleecy fiber which her mills so extensively spin, and no broad acres teeming with grain crops and no vast expanse of virgin forest, but her manufactures of iron and steel, of cotton and wood are immense, and have been the source of much of her wealth.

It is also a fact that the South possesses in overflowing abundance, and far in excess of any other country in the world, inexhaustible supplies of such raw material as coal, iron, cotton, timber and oil, a fertile soil suitable for the production of every variety of agricultural growth, an equable climate and uniform rainfall, and, with the example of New England before her, her opportunities and possibilities are, indeed, illimitable and inexhaustible.

New England manufacturers must procure their raw material in distant States, and largely in the South, while the people of these Southern States have them all at hand at home. Time was when New England, by monopolizing manufactures of all sorts, could afford to pay freights on raw material transported from distant sources of supply, and then sell the manufactured products at a profit, having to compete only with the manufacturers of old England and of the continent of Europe. But the growing competition in manufacturing that is springing up all over the country, and particularly in the South, has enforced a necessity for economy in all the processes of transportation and production which is giving the advantage to those who possess the raw material at home and do not have to bring it from distant localities.

New England is still rich, but the urgency of this competition and the lack of these advantages are telling against her industries, and many of her most sagacious manufacturers are opening factories and investing their capital in Southern States.

New England is the farthest of the continental portion of the Union from the Mississippi valley, a region which furnishes a great portion of the world's bread and meat and cotton, articles absolutely indispensable for food and clothing, while the greatest part of the iron, coal, oil, timber and other valuable raw materials are in this vast region drained by the various tributaries and the great conti-

mental waterway which gives a name to that valley. Here is a region which is capable of feeding and furnishing employment to 100,000,000 people, and into this vast fertile and richly-endowed expanse, to which the famous valley of the Nile, the boasted granary of the Roman world, is but a province, must be located the vastest manufacturing, as well as the enormous farming industries, which will employ and sustain this immense population.

That these Southern States of ours will become the seat of a grand material development and a splendid civilization, which will give them a political and material power like unto which that which the South enjoyed in the first 50 years of the republic's existence will be but a mere shadow of greatness, is sure. But it must be borne in mind that wealth and power come not by supine indolence and waiting, but by seizing every opportunity and utilizing every resource to the utmost. Then only will the South realize the highest grandeur of its destiny.

DISPOSAL OF SEWAGE.

Extension of the System in Operation at Sheffield.

United States Consul Daniels, Sheffield, England, reports that "at the last meeting of the Sheffield city council a recommendation from the highway and sewerage committee was adopted that application be made to the local government board for its sanction of the borrowing of \$1,315,750 for the extension and improvement of the sewage-disposal works of the corporation at Blackburn Meadows.

"For several years the corporation has been engaged in studying the problem of sewage disposal. Not many years ago a lime process was adopted with the full consent of the local government board. A few years later experts in London discovered that the lime treatment was altogether wrong, and, although Sheffield had expended about \$243,325, the citizens were told that some other system would have to be adopted.

"The local board, realizing that the disposal of the sewage of 400,000 inhabitants was an important question, has moved slowly in the matter. Recently, however, the West Riding rivers board has taken a hand in the proceedings, and Sheffield particularly has been notified that the polluting of the river water by its sewage will be no longer permitted, and divers penalties are threatened if the practice is not stopped.

"As the question of sewage disposal for a city the size of Sheffield is a difficult one to settle, the commission is not embarking on such a huge undertaking without carefully taking its bearings. For the past five years the city surveyor and his staff have been carrying on experiments at the sewage works.

"The experimental stage may be said to have been passed, and sewage equal to that of a town of 30,000 inhabitants is being treated according to the system upon which it is proposed to expend \$1,315,750. Whether it is sufficient experts will have to decide, and there will shortly be in Sheffield a local government inquiry to determine this question.

"Some five years ago Sheffield was confronted with several schemes. One dealt with treating the sewage on land near Worksop, another at Doncaster, each involving an expenditure of over \$2,433,250; a third contemplated carrying the sewage to the sea at a suggested cost of \$6,407,175, and a fourth considered the treatment by bacteria beds in the vicinity of the present works of the corporation, thus utilizing the existing land used for sewage disposal.

"After elaborating on each process it was the last named, the biological system,

that the city surveyor suggested should be adopted by Sheffield. He continued the experiments, pointed out that the system was in its infancy, and advised against a hasty expenditure of money. Much progress has been made, the action of the bacteria beds have been carefully watched, and important innovations have been made to render the system efficient, with the result that an attempt is to be made to treat the whole of the sewage of the city by the biological process at an initial cost of over \$1,313,955, not including the price of 100 acres of land which it is estimated will be required.

"If the scheme is adopted the whole of the money will be expended at the sewage works. Three large main sewers will convey the sewage to the works. It will then pass through catchpits for the purpose of intercepting the grit, which it is desirable to keep out of the beds, then into the sedimentation or settling tanks, and next into the contact or bacteria beds. The last-named are made of coke or clinker, and the natural process that ensues in these beds is said to render the effluent pure, and it then runs into the river.

"It is proposed to have 60 contact beds, each an acre in extent, and there will be 15 settling tanks, each with a capacity of 1,000,000 gallons. In addition, there will be 16 beds for dealing with storm water.

"The river will have to be bridged in order to utilize the land, and a siphon will have to be fixed in the river. Roads and railways will have to be constructed, and in treating such vast quantities of sewage over so many acres of land the cost of the construction of conduits is no small item. The production of large quantities of sludge by the present lime precipitation has been a serious financial item. There would be none by the proposed scheme, which has been evolved after watching the experiments which have been carried on in Sheffield the last four years, and also the experience of other towns. Manchester having adopted a similar system at a cost of \$1,946,600.

"In January last a report of a subcommittee recommended the adoption of a similar scheme at a total cost of \$1,787,635. This contemplated providing two contact or bacteria beds for the sewage after it left the settling tanks. A visit to Manchester showed that the city had the consent of the local government board to try the experiment of one contact bed instead of two, by promising to provide the second bed if the purification was found to be incomplete. Sheffield is able to proceed along similar lines, the corporation possessing sufficient land for second contact beds if they are considered necessary. As they were deemed unnecessary at Manchester, Sheffield has cut them out of the scheme, thereby reducing the estimate from \$1,787,635 to \$1,315,750. The whole matter now awaits the action of the local government board."

Big Acid and Fertilizer Plant.

Florida's fertilizer-manufacturing industry continues to advance steadily. It is being augmented at present by the erection of a large acid and fertilizer plant at Jacksonville, Fla., by the Wilson & Toomer Fertilizer Co. of that city. The acid chamber will have a capacity of over 20,000 tons of sulphuric acid annually, and about 50,000 tons of fertilizers ready for use will be produced annually in the fertilizer department proper. The main building is 170x400 feet in size; acid chamber, burner building and storage shed, 65x380 feet; engine and power-house, a fireproof building, 58x57 feet. About \$150,000 will be the cost of the plant, and by March next it will begin operations. From 100 to 125 men will be employed. Frank L. Wheeler, vice-president of the Wilson & Toomer Fertilizer Co., is the

engineer in charge of constructing the plant.

The Coal of Tennessee.

Mr. R. A. Shiflett, mine inspector of Tennessee, believes that because of mining differences this year's output of coal for Tennessee may not be as great as last year's, but that it will be doubled within a few years. In an interview with the Knoxville Sentinel he said:

"Tennessee's hope for industrial and commercial supremacy depends on the mining of coal in particular, which for this State is yet in its infancy. Thousands of thousands of tons of the finest coal in the world lie buried in the mountains of Tennessee, many fields of which are yet untouched. Some of the finest coal in the United States is in the New River country awaiting development, and the construction of a railway line through that region will be the signal for its development.

"At the present time the world's coal market does not depend on the opening of new coal regions, but in a few years the demand will far exceed the supply, and the developing of hitherto untouched regions in Tennessee will be required."

Mr. Shiflett said that the building of the Knoxville, LaFollette & Jellico Railroad will double the output of coal in East Tennessee. He did not state what effect the increase in the amount of coal mined in Tennessee will have on the market, but it is said by others that it will lower the price and will likewise cause outside manufacturers to look more and more to East Tennessee for their supplies of coal.

Mr. Shiflett said that already seven new companies have opened coal mines on the Knoxville, LaFollette & Jellico Railroad between LaFollette and Jellico. He said other concerns are making arrangements to mine coal in that region and that before spring 10 or 12 companies will be in the field between LaFollette and Jellico. The coal of that region is of a superior grade.

Mr. Shiflett was of the opinion that the building of the new line of the L. & N. road will make a great change in the production of coal for this region.

Inducements to Manufacturers.

Among the progressive towns of the South that offer inducements to manufacturers who will locate plants within their limits is De Valls Bluff, Ark. This town is situated halfway between Little Rock and Memphis. It is well located, as to raw materials and transportation facilities, for all kinds of woodworking industries, canneries, creameries and pearl-button factories. The surrounding country produces large quantities of vegetables and fruits for canneries, timber is plentiful for woodworking plants, and the White river, navigable all the year, furnishes an abundance of shells for buttons. Full particulars regarding the advantages of De Valls Bluff and its territory can be obtained by addressing the Industrial League, De Valls Bluff, Ark.

Wants to Locate South.

An American who has been operating a plant in Mexico City for manufacturing printing ink, lithograph and printing-ink varnishes, roller composition, etc., desires to transplant his entire plant to some Southern city having good railroad facilities and a good geographical position as a distributing point. He invites proposals and information from Southern cities which may desire a plant of this character and will give the matter his prompt and careful consideration. He desires to make arrangements for removing as quickly as possible. Address Mexico, care of Manufacturers' Record, Baltimore.

THE GREATNESS OF TEXAS.

Opportunities Yet to Be Seized by Progressive Men.

Editor Manufacturers' Record:

While the Manufacturers' Record has a good cognomen, it is literally the arch-friend of the South. While I am considerable of a traveler in the State of Texas, I learn more from the Manufacturers' Record than I do from the great dailies of Texas and my travels through it, especially of its industries and continual advancement in material prosperity. While I have passed two-thirds of a century within her borders, I have never known the State or Republic to be in so good condition as a whole as it is today. Much of its prosperity is due to the hand of Him who doth all things well, lately developed by his creature man. The old residenter is satisfied with the kindness of Deity. The State's great timber forest is the storehouse of nature that is developed here fairly well. Its oil is being but partially developed, and all the balance of its vast resources are in a state of coma, that is, to all intents and purposes, judging from the past, waiting for foreign capital. In the developing of its timber interest and its oil interest home capital has done a fair share. But what has Texas done for its cotton, its iron, its stone, its clays, its fruits, its vegetables, its tobacco and the hundreds of other resources? A single word "nothing" answers, but beg foreign capital to come and develop nature's great gifts. Yet bank clearances show that Texas has large sums of capital uninvested, literally idle.

God helps those who first help themselves. Texas has a good cotton crop. Texas has of all nature's gifts—fruits, vegetables, the soil and climate, a better tobacco than the Vuelta from Province Pinar del Rio of Cuba. For reason of non-production of pig-iron and its products the cry is "the trusts." With 2,500,000 bales of cotton, with millions of pounds of wool, with more than 10,000,000 pounds of pelts, not a shoe or a pound of Texas-made leather in the State. The State has millions of tons of cottonseed phosphates and cottonseed meal, and not enough fertilizers are made in Texas to supply an East Texas tomato patch. With millions of feet of desirable and suitable wood for furniture, wagons, etc., there is not a home factory of importance in the State. With thousands of fruits better than California, not a fruit-packer worthy of the name is in the State.

These things are ad infinitum, but chambers of commerce, etc., of the cities cry out for foreign capital to come and work it up. We do not need the brain and skill of England and Germany, and if home capital is used to start the development American capital must be used, because in Texas the alien land law interdicts foreign capital. While it is a constant menace to the State and has destroyed more than \$60,000,000 of investments and retarded the State for a quarter of a century in progress, it is a statute law of Texas and will be with us until many funerals take place. Yet Texas is prosperous because of the fertility of the soil and the unequalled climate and nature's storehouses. Every citizen of Texas desiring progress should be thankful for the great benefit the Manufacturers' Record is to them.

Your Manufacturers' Record of statistics shows that Texas is a desirable home for all intelligent and industrious men, and there is room enough to give a big field to half of New England and then hide a few States besides. East Texas is putting to soil a large number of fruit trees. One orchard and vegetable farm in this section has declared a dividend of 19 per cent. and made much corn and forage

stuff for the people and animals on the place, and there are over 150 persons and many horses, mules, cows, hogs, etc., on the great orchard company, and 800 acres of pears and fall crops are to be accounted for yet.

The gold standard has with protection kept her progressive, but Texas and Arkansas are for free silver and free trade, saying that nature will provide. But I began simply as one of the oldest inhabitants to thank you for your love and great benefit to my native South.

JOHN M. CLAIBORNE.

Rusk, Texas.

Gold-Mining in Georgia.

Editor *Manufacturers' Record*:

I read with interest what Mr. J. E. Black, vice-president of the Georgia Gold Mines Co., said in his letter published in your issue of November 10. I want to say that there is no better opportunity for the investment of capital than is offered in Georgia in building a smelter for the treatment of ores. I can say, without fear of contradiction, that there are over a dozen gold quartz mines that will equal any of the Montana, California or Arizona low-grade propositions. I write from personal observation, actual working tests and assays made by myself of these Southern ore veins. And as I have spent many years in Montana, California and Arizona, have visited the different camps there and actually worked in the mines, I feel confident that I know what I am writing about. If this letter should come under the eye of any miner who knows what a good thing is, and if he will come down here I will agree to show him in Haralson county, Georgia, a dozen quartz veins that will show a working result better than \$7 per ton. I do not mean an assay. I mean an actual working test. If I fail to do so I will pay all of the expenses of the miner. I have nothing to sell, and am not looking for a commission. But I want to see my native State get a square deal. What we want here is practical miners and men with money who have made it in mining. High-top shoes, side-whiskers and high collars will do for those office miners. We want here graduates from the mines of Dakota, Montana and Arizona and from the sieve boxes and bedrock cuts of California. Wind options and experiments have held us back long enough. We must have actual development and facilities for treating our ores at home. Labor here is \$1 a day, wood \$1 a cord, team and man \$2.50 a day. We have good roads and a railroad within one mile. Knowing the *Manufacturers' Record* to be the friend of our country and of every legitimate enterprise, we feel you will help us to draw attention to our needs. FRANK F. TAYLOR.

Kemp's Creek, Ala.

Progress at Alexandria, Va.

Concerning development at Alexandria, Va., the *Financial Review* of Washington, D. C., quotes Mr. M. B. Harlow of the real estate firm of M. B. Harlow & Co., who says that he attaches large importance, and certainly not without good reasons, to the likely development of the city in the direction of Washington within the next five years. He cites the fact as sustaining his contention that seven powerful railroads, to wit, Pennsylvania, Baltimore & Ohio, Chesapeake & Ohio, Southern, Atlantic Coast Line, Seaboard Air Line and Norfolk & Western, are deeply and mutually interested in railroad betterments between the two cities. This view finds tangible support in the fact that railroad interests are now building a large freight station near Alexandria, where several roads own two miles of frontage on the Potomac north of Alexandria.

In the financial line at Alexandria the principal advancement within a twelve-month consists of one new national bank and a trust company and the projected erection of three new banking-houses, one of which is to be the future home of Messrs. Burke & Herbert, and which is almost completed.

The increase in the banking power since the first of the year is shown by the following comparison: Resources January 22, 1904, \$2,033,543.41; resources September 6, 1904, \$2,828,689.24; deposits January 22, 1904, \$1,244,522.09; deposits September 6, 1904, \$1,747,945.38.

Lake Borgne Industries.

Various manufacturing industries are being established as a result of the extensive developments undertaken at Lake Borgne by New Orleans and Eastern capitalists. A town called Borgne-mouth has come into existence. The Louisiana Lime Co., which has been operating a lime plant there, will be taken over by the Louisiana Lime & Cement Co., now being organized with a capital stock of \$400,000. This company will incorporate and build a Portland cement plant with a daily output of 1000 barrels of material. The location of this plant, so near New Orleans, will enable the owners to dispose of a large part of their product in the city. The latter is said to be now importing 250,000 barrels of cement and 1,000,000 barrels of lime, all of which the new company could supply. Another enterprise at Borgne-mouth is the Mississippi Coaling Co., whose plants will be completed by January 1. It is expending about \$100,000 to build an immense tippie with a capacity of 200 tons an hour, capable of coaling the largest vessels afloat. From contracts already signed the company expects to handle from 200,000 to 300,000 tons of coal per annum. The New Orleans Shipwright Co. is another enterprise at Borgne-mouth. It is building barges for the canal trade, the ways—120x30 feet—being large enough for the construction of four barges simultaneously. Derricks and dredge hulls will also be built and a large repair shop is being maintained. Some 400 men are employed at present. The Joulilian Packing Co. of Biloxi, Miss., contemplates establishing a large oyster cannery and offers to furnish 1500 barrels of oyster shells every day to the lime works.

National Irrigation Congress.

The Twelfth National Irrigation Congress, in session at El Paso, Texas, elected Governor George C. Pardee of California, president, and Judge L. M. Shurtliff of Ogden, Utah; Congressman J. H. Stevens of Texas and Mr. E. L. Smith of Hood River, Ore., vice-presidents. The resolutions favored the extension of the national irrigation law to the extent of permitting Texas to have the services of engineers of the United States reclamation service in deciding upon feasible irrigation projects and in superintending the construction, the appropriation of funds for reforesting denuded watersheds in the national forest reserves, the construction of a ship canal along the west shores of Sabine lake with a view to opening to navigation the Sabine and Neches rivers, the preservation for the benefit of actual homeseekers who will live upon the land and in good faith cultivate the soil of the remaining public domain, and a non-interest-bearing loan by the government to the reclamation fund.

For a Starch Factory.

Mr. Alexander Helper, secretary-treasurer of the Commercial Association of Danville, Va., would like to get in touch with anyone desiring to establish there a factory to make starch from Irish pota-

toes, which he says he believes would be a paying investment, as the finest Irish potatoes are produced along the line of the Danville & Western Railroad.

Asheville's Water Supply.

The Board of Trade of Asheville, N. C., has issued a pamphlet by Dr. C. P. Ambler telling of the completion at a cost of \$250,000 of a gravity-line water-works for the city with a capacity of 5,000,000 gallons every 24 hours. The gravity line consists of 17 miles of 16-inch iron pipe laid deep in the ground over valley and ridge to the North fork of the Swannanoa, a stream whose source is a thousand springs high up toward the top of Mt. Mitchell (the highest point east of the Rockies), at an elevation of 6711 feet. The line is provided with sedimentation basins and with filters (which will probably never be used). Asheville owns the watershed of over 10,000 acres of an unbroken forest.

Tennessee River Improvement.

Three hundred delegates to the Tennessee River Improvement Convention at Decatur, Ala., last week adopted a memorial asking that Congress appropriate \$575,000 for the completion of the improvements of Colbert and Big Tree shoals, and \$60,000 for work between Knoxville and Chattanooga, \$25,000 between Chattanooga and Riverton and \$40,000 between Riverton and Paducah. The convention elected Messrs. Thomas R. Roulhac of Sheffield, president; C. W. Holbrook of Chattanooga, secretary; J. A. Patten of Chattanooga, treasurer; J. T. Wilder of Knoxville, C. D. Mitchell of Chattanooga, Emmet O'Neal of Florence and Joseph Wheeler of Wheeler, vice-presidents.

To Develop Water-Power.

Another water-power enterprise for the South is announced. It is noted in the incorporation of the Parr Shoals Power Co. of Newberry, S. C., with capital stock of \$50,000 and privilege of increasing to \$1,000,000. The company proposes to develop water-power at Parr Shoals and erect a power plant to transmit the energy by electricity throughout the surrounding territory. Messrs. W. K. Sligh, C. H. Cannon and M. G. Houseal of Newberry, S. C., and C. L. Scott of Greenville, S. C., are the incorporators. They have been making the arrangements for this project since last spring, and the *Manufacturers' Record* was informed of it at the time, but the parties were not prepared to make definite announcements until now.

Preparing for the Canal Route.

The directors of the Board of Trade of New Orleans have taken time by the forelock by urging the organization of a steamship company, with a capital of not less than \$5,000,000, to ply between New Orleans and the Orient after the completion of the Panama canal. The plan is embodied in resolutions which will be brought before the next meeting of the National Board of Trade of Washington. They recite the importance of the States of the Mississippi valley as contributors to the export trade of the country and ask the co-operation of the governors of the various States in the Mississippi valley and the South and the mayors and presidents of commercial bodies in the cities of those States in the undertaking.

Would Match Dollars in Industry.

Mr. George Shine, secretary Young Men's Business League, Greenville, Miss., says in a letter dated November 22: "We want to get in touch with men who have money to put against our money, dollar for dollar, and then push a business deal to a money-maker for both."

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

SEABOARD & BIRMINGHAM.

Extension Completed by Connecting Track at Odenville, Ala.

A report from Birmingham says that the Seaboard Air Line's extension from Atlanta to that city has been completed and that Superintendent L. B. Parsons has made a trip over the line in his private car. A regular freight schedule will, it is stated, be put in effect December 1 and the passenger service will be established some weeks later.

The east and west sections of the track were connected at Odenville, Ala., about 30 miles east of Birmingham. Telegraphic connection has also been established.

The completion of this line makes possible traffic arrangements and an eastern outlet for the Frisco system, as well as reciprocal arrangements westward for the Seaboard, both of which have long been talked of as possible results of the Birmingham extension. Mr. B. F. Yoakum, chairman of the board of the Frisco system, is a director in the Seaboard, as are H. Clay Pierce and James A. Blair, who are also on the Frisco board. That a very close relationship will exist between the two railroad systems therefore seems to be assured.

The Seaboard plans provide for extensive yards at Birmingham, and it will also be able to operate over the Birmingham Belt Line, which is controlled by the Frisco. This will enable the two properties thus united to handle business to all eastern as well as all western points out of the Birmingham district.

Four Projects in Georgia.

Four new railroad projects are reported from Georgia. The Waynesboro, Sylvania & Savannah River Railroad Co. has published notice that it will apply for a charter to build from Waynesboro, Ga., via Sylvania and Clyo to the Savannah river, a distance of about 60 miles. Those interested are William A. Wilkins, Sr., Robert C. Neely, Edwin Fulcher, Frank M. Cates, Charles W. Skinner, George O. Warnock, Floyd L. Seales, William A. Wilkins, Jr., William H. Davis, Palmer L. Coker, Hugh B. McMaster, William M. Fulcher, William L. McElmurray and N. P. Thomas of Waynesboro, Burke county, Georgia, and L. H. Hilton, J. J. B. Morel, Isaac Silver and P. A. Mock of Sylvania, Screven county, Georgia; S. B. Lewis of Bascom, Screven county, Georgia, and J. T. Walker of Boyd, Ga.

From Atlanta it is reported that Clyde L. Brooks, 508 Gould Building, has prepared a charter for the Athens, Floral Park & Newnan Air Line Railway Co. to build from Athens, Ga., via Monroe, Conyers, Floral Park and Fayetteville to Newnan, about 90 miles. Ransom Rogers, 625 Empire Building, Atlanta, will, it is said, make the survey, and J. S. Betts, railroad contractor, of Ashburn, Ga., may build the road.

The Atlanta & Carolina Railway Co., which proposes to build an electric line from Atlanta, Ga., to Greenville, S. C., about 150 miles, has formally organized with \$2,000,000 capital. The line will go via Lithonia, Lawrenceville, Hoschton, Jefferson, Commerce, Carnesville, Ga., and Anderson, S. C. The directors are John R. Hosch, Dr. W. P. DeLapierre, John E. Hill, L. F. Sells, Henry Brazelton and Prof. H. T. Edgerton, all of Hoschton; J. B. Thompson of Gainesville and James Sawyer of Snellville. The officers are John R. Hosch, president; J. B. Thompson, first vice-president; Dr. W. P. De-

Lapierre, second vice-president; Prof. M. T. Edgerton, secretary, and Joseph A. McCord of Atlanta, treasurer. C. J. Haden of Atlanta was elected attorney.

The Savannah, Statesboro & Northern Railway Co. has been granted a charter to build its proposed line, about 160 miles long, from Statesboro, Ga., to Louisville, Thomson, Washington and Athens, Ga. Those interested are Cecil Gabbett, president of the Savannah & Statesboro Railway, and others.

RACE FOR WEST COAST.

Stillwell's Success With the "Orient" Inspires Six Other Companies.

In the last 12 months there has been a renewal of activity on the part of those railroads that are endeavoring to reach the west coast, and railroad men of this city, believe that before the end of the year 1904 much will have been done toward uniting the east and west coasts of Mexico. By a few this stimulus has been ascribed to the fact that the Panama canal will place the country's western coast in easier communication with the Eastern markets, but to derive the benefit of tapping untouched Mexican territory probably has as much to do with the desire of the roads to penetrate to the Pacific. That there should be increased activity at this time is doubtless due to the fact that it seems the plans of A. E. Stilwell to reach the coast with the Orient will be successful.

Just now there are no less than seven companies who have lines projected toward the coast. The Orient is being built to Topolobampo. The Sierra Madre has applied for a concession to enter Aguilampo. A London company has been organized to build a road south from Hermosillo to Aguilampo or to Topolobampo. Surveyors are at work on the proposed extension of the International to Mazatlan. English capital is behind a project to build a line down the coast to Mazatlan. The Central has not abandoned its plan to extend its Colima line to Manzanillo, and the completion of the port works is all that prevents the Tehuantepec from already having complete transcontinental transportation facilities.

It will be to the advantage of any one of these roads that succeeds in reaching the coast first. They may not be planning to race for that advantage, but there is some indication of it now. It is no secret the Orient is doing all possible to get its line built as quickly as possible, and the English companies, probably because they are new concerns and have not yet been subjected to reverses, are out with statements that they will construct their lines as quickly as possible.

WABASH EASTERN LINE.

Final Inspection of the Greene County Line From Pittsburg.

The Wabash Railroad, it is reported, is preparing to build the Greene County Railway, its projected extension, eastward from Pittsburg, Pa. A report from Washington, Pa., quotes Virgil C. Bogue, consulting engineer, as saying that the Wheeling, Waynesboro & Eastern Railroad, a projected connecting line, will also be built.

According to the report Mr. Bogue and several other engineers made a trip over the Greene County route preparatory to making a final report on the project. He is quoted as saying that the line will surely be constructed. He was accompanied by W. N. Arthur of Pittsburg and J. Q. Barlow of Cumberland, Md., the latter being chief engineer of the Western Maryland Railroad. J. H. McEvert, representing a New York syndicate, and J. W. Patterson, Jr., of Pittsburg were

also in the party. The road is to be built next year and is to connect at the West Virginia State line with the proposed Buckhannon & Northern, which will in turn connect with the West Virginia Central and Western Maryland.

R., F. & P. Annual Report.

The annual report of the Richmond, Fredericksburg & Potomac Railroad for the year ended June 30 last shows gross earnings from transportation \$1,522,332, increase \$183,427; operating expenses \$1,021,501, increase \$80,979; net earnings \$500,831, increase \$102,448.

President E. T. D. Myers in his report says a comparatively small amount of work remains to be done to complete the double track, and unless unforeseen difficulties present themselves the double track will be ready between Richmond and Quantico for the spring business.

The report also refers to the difficulty of handling both freight and passenger cars at Washington, but the new yards now building at Alexandria will in great part overcome this trouble. They will have over 40 miles of tracks and will be operated on the gravity plan. Freight trains will be made up in these yards by the Southern, the Seaboard, the Atlantic Coast Line, the Pennsylvania and the Baltimore & Ohio railroads, as well as by the Richmond, Fredericksburg & Potomac Railroad, which will manage the yard.

TIDEWATER RAILWAY.

Surveys in Progress and Right of Way Being Taken.

Press reports from Lynchburg, Richmond and Green Bay, Va., say that engineers for the proposed Tidewater Railway are pushing the survey for the line, and from Lynchburg it is reported that options are being taken for rights of way.

According to dispatches from Newport News, Va., Mr. W. N. Page of Ansted, W. Va., who is chief engineer of the Tidewater Railway of Virginia, as well as of the Deepwater Railway of West Virginia, visited there and conferred with Messrs. C. B. Orcutt, president, and L. B. Manville, superintendent of the Old Dominion Land Co., concerning a terminal and rights of way over various properties. Now it is said a party of engineers for the railroad company are at work under the leadership of J. G. Trent surveying a line near Newport News, going down the east bank of Salters creek to the waterfront.

Monroe & Lake Providence.

Mr. A. A. Gunby, president of the recently-organized Monroe & Lake Providence Railroad Co., writes from Monroe, La., to the Manufacturers' Record as follows:

"We have employed J. D. Garrison, late of the Texas & Pacific system, to make survey and location and W. H. Hampton to secure right of way. We are promised a number of special taxes along the route, which will be 65 miles long through a perfectly level alluvial region, above overflow, from the Ouachita to the Mississippi river. It is among the richest undeveloped country in the South in timber and fertility of soil, and every desirable agricultural aspect. No bids for construction, equipment, etc., will be solicited until the survey is complete.

"By a recent amendment to our State constitution all new railroads will be exempt for 10 years from all taxation, quite a valuable franchise."

Jasper & Eastern Contract.

Concerning the Jasper & Eastern Railway, recently incorporated by officials of the Santa Fe, Mr. C. F. W. Felt, chief engineer of the Gulf, Colorado & Santa

Fe Railway, writes from Galveston, Texas, to the Manufacturers' Record, saying:

"The approximate length of line now arranged for is 50 miles, and the general location is in a northeasterly direction from Kirbyville, Texas, towards Alexandria, La., and we cross the Kansas City Southern south of De Ridder, and connections will be made with the mills at De Ridder, Bon Ami, Carson and other points. The engineer in charge is Mr. M. F. Temple, chief engineer; headquarters at Kirbyville, Texas. The contract for the construction of the line has been awarded to the Lantry-Sharp Contracting Co., Gumbel Building, Kansas City, Mo."

Rock Island Not to Build.

Concerning a press report that the company was preparing to build the projected line to the Gulf in Texas, President B. L. Winchell of the Chicago, Rock Island & Pacific Railway writes from Chicago to the Manufacturers' Record as follows:

"We are in no way planning or negotiating for the construction of a line from Dallas to Galveston."

About two years ago the Rock Island obtained a Texas charter to build a line from Fort Worth to Dallas, and thence to the Gulf. The road was constructed between Fort Worth and Dallas, but nothing has been done about the Gulf extension, notwithstanding that several surveys were then made. The recent negotiation of a \$25,000,000 loan by the Rock Island with Speyer & Co. revived the report that the Gulf extension would be constructed.

Double-Track Change of Line.

Mr. A. S. Baldwin, engineer of construction Illinois Central Railroad, writes from Chicago to the Manufacturers' Record:

"The change in line between Fort Jefferson and Wickliffe, Ky., is made on account of encroachment of the river upon the present roadbed. This change is about four and one-half miles in length, starting at the northerly limits of Wickliffe and extending in a southward direction for the distance given. There are in the work about 500,000 cubic yards of grading, which has been let to W. J. Oliver of Knoxville, Tenn. The assistant engineer in charge of the work is Mr. E. I. Rogers, located at Wickliffe, Ky. The diversion is for a double-track railroad."

Building to Tom's Creek.

The South & Western Railway, of which George L. Carter, Bristol, Tenn., is president, has, it is reported, put 200 men at work between Clinchport and Coeburn, Va., on its proposed extension to the Tom's Creek coal fields. It is also reported from Bristol that Dr. John S. Wentz & Sons of Philadelphia are investigating the South & Western extension and may become interested in it.

The Virginia & Southeastern Railway, lately chartered by capitalists in the Virginia & Southwestern Railway, has a force of engineers surveying its line in the same direction as the extension of the South & Western, and its attorneys are said to be securing rights of way.

Cumberland & Mt. Savage.

The Cumberland & Mt. Savage Railway Co. has been incorporated at Cumberland, Md., to build a line connecting Cumberland, Mt. Savage, Corriganville, Ellersley and Barrellville, and to go from Barrellville to the Pennsylvania State line, about 12 miles. The incorporators and directors are George Clinton Uhl, Mt. Savage; Dr. William Oliver McLane, Frostburg; John Henry Holzshu, James A. McHenry and Charles G. Holzshu, Cumberland, Md. James A. McHenry and J. Henry Holz-

shu are officials of the Cumberland Electric Railway.

Louisiana & Arkansas Report.

The Louisiana & Arkansas Railway Co. reports for October as follows: Gross earnings 1904, \$68,184; 1903, \$52,000; operating expenses and taxes 1904, \$41,871; 1903, \$42,631; net earnings 1904, \$26,313; 1903, \$9,369. For the four months ended October 31, gross earnings 1904, \$263,892; 1903, \$212,761; operating expenses and taxes 1904, \$162,667; 1903, \$164,916; net earnings 1904, \$101,225; 1903, \$47,845. These figures are furnished by Fisk & Robinson of New York and Boston.

Engines, Cars and Bridges.

The Santa Fe system is reported to have awarded a contract for 150 locomotives to the Baldwin Locomotive Works of Philadelphia.

The Alabama Great Southern Railway will, it is reported, also purchase 17 engines and 1500 freight cars.

The Pennsylvania Railroad, the Chesapeake & Ohio Railway and the Illinois Central Railroad are said to have awarded to various manufacturers large contracts for bridge material.

Western Maryland Terminals.

The Western Maryland Railroad Co. has closed a deal for the Brown's wharf property near the foot of Broadway, in the city of Baltimore, and will use it as a tidewater freight station, cars loaded there to be transported on barges around the harbor to Port Covington, where the railroad ends at tidewater. This deal gives the company a terminal on the north side of the harbor as well as on the south side.

Improvements at Houston.

Mr. L. Trice, second vice-president and general manager of the International & Great Northern Railroad, writes from Palestine, Texas, to the Manufacturers' Record that the company's plans for improvements at Houston are not yet completed and no definite time has been decided upon for commencing the work.

Houston, Licking & Salem.

The Houston, Licking & Salem Electric Railway Co. has been organized at Houston, Mo., to build a line connecting the three places named. It will be about 30 miles long. The directors are James A. Craven, Robert Lamar, W. J. McGehee, Clark Dooley, W. E. Barton, J. R. Blankenship and A. J. Johnson.

Railroad Notes.

The Schlosser Leather Co. of Pioneer, Tenn., will, it is reported, build six miles of railroad to connect with the Knoxville & Ohio line at Pioneer.

The Atchison, Topeka & Santa Fe Railway has, it is reported, awarded to Robert Kincaid the contract to extend its line 12 miles from Owasso, I. T., to Tulsa, I. T.

The Hagerstown Electric Railway Co. having completed its extension to Myersville, Md., connecting there with the Frederick Electric Railway, cars are now to be run through over the Blue Ridge mountain between the two cities.

According to a report from Austin, Texas, the St. Louis, Brownsville & Mexico Railway, instead of building its own line to Houston, will be connected with the Gulf, Colorado & Santa Fe at or near Alvin on the proposed Galveston extension, and will use the line of that company to reach Houston.

The factories in the Northern Neck of Virginia which handle menhaden fish have enjoyed an unusually profitable season this year.

MECHANICAL

Extension of the Chicago Drainage Canal.

One of the interesting engineering works now under construction and which is attracting much attention in engineering circles is the extension of the Chicago drainage canal. This work is now progressing. The plans for it provide for an extension

The power units are designed to pass 100,000 cubic feet at 8-10 discharge. They consist of turbines or horizontal axes capable of generating 6500 horse-power at full gate under 34 feet of head at 150 revolutions per minute. Each power unit is to drive one 3750-kilowatt three-phase 2200-volt generator. The ultimate discharge of the channel will, under present plans, reach 800,000 cubic feet per minute.



EXTENSION OF CHICAGO DRAINAGE CANAL.

of the channel now in use between concrete walls and earth and rock embankment southward for a distance of about 10,700 feet to the site selected for the erection of the power plant. From this point on a tailrace is to be excavated for a distance of about 6800 feet to a junction with original Section 17. This tailrace is to be 160 feet wide and to be deep enough to afford a minimum depth of water of 22 feet. Section 17 is a wide

This outline of the work shows that its primary purpose is sanitation, and that in attaining that vital object it provides an artificial waterway of great utility and develops water-power of immense value.

The following machinery is being used: Ten miles of air pipe, 2 Rand "Imperial" type 10 compressors, each having a capacity of about 2000 cubic feet; 32 No. 3 1/4 Little Giant Rand drills. Working in front of each shovel are 7 rock drills; av-



EXTENSION OF CHICAGO DRAINAGE CANAL.

channel, and the minimum depth of water therein until it enters the upper basin at Joliet will be 10 feet. The mean head for power development resulting from this improvement will be 32 feet, and the net horse-power, figured on an efficiency of 75 per cent, and a flow of 600,000 cubic feet per minute, will be 27,000 horse-power. The power is to be housed in a structure of concrete and brick construction, and will have 10 turbine chambers—three for exciter units and seven for power units.

erage depth of holes drilled, 14 feet; average number of lineal feet drilled by each drill per shift of 10 hours, 125. The drills, channelers and pumps are operated by compressed air. Other equipment in use includes 4 70-ton shovels having three-yard dippers, 2 stone crushers, capacity 8000 yards per day; 2 portable concrete mixers, 14 14-ton locomotives, 150 dump cars, 15 miles track, 4 track channelers, 2 hoisting engines, 15 suction pumps, 2 40-horse-power boilers, 1 80-horse-power

boiler, 1 110-horse-power boiler, 2 centrifugal pumps, electric-light plant and machine and blacksmith shop. There are 11 buildings in the camp and about 500 men are employed.

It will be noted that the most important machinery—compressors, drills, etc.—is the product of the Rand Drill Co., 128 Broadway, New York. Two accompanying illustrations show the canal work in progress.

The Moffatt Heaters and Pumps.

Experienced engineers agree as to the economy resulting from the use of improved modern heaters and pumps. When such apparatus is required it is then only a question of selecting that which will afford the best possible results, and to assist purchasers to a satisfactory choice the following data and the accompanying illustrations are presented. Fig. 1 shows the Moffatt variable-stroke independent boiler-feed pump. This pump is new and novel in its general principles.

It will be observed that the pump is of the simple plunger pattern, outside packing, and is power-driven from line shaft. The frame is of the girder type, and is very strong and rigid, having a wide base; it stands very firm and steady when at work. The pump is fitted with tight and loose pulleys, and is geared 5 to 1. The plunger is attached to a crosshead, through which an adjustable screw passes, which forms the lever. One end of this screw is connected to a crank on main shaft by means of connecting rod. The bearings at the crank end of screw being supported by a rocking fulcrum bar, readily shifts to a longer or shorter stroke, thus continuously feeding the boiler with the amount of water required and making the consumption of power to correspond exactly with the amount of water handled.

In changing from four-inch to two-inch stroke the leverage is just doubled and the consumption of power lessened one-half, etc. Being thus able to change the stroke, any graduation of stroke desired can be obtained (covering a variation of delivery by the pump of over 600 per cent.) without stopping.

This enables the fireman to feed his boilers constantly and to carry under any and all conditions a uniform water-level, in consequence of which the water remains the longest time possible in the heater, absorbing more heat and throwing off more of the impurities held in solution, and thus it is that the Moffatt heaters and pumps reach a high economy. The pump is fitted with a relief valve to take care of it in case that at any time a valve in the discharge should be closed while in operation.

The valves (four in number in the double-acting and two in the single-acting pumps) are all enclosed in valve chest on the front of the cylinders, and by lifting the face all are in full view and are easily taken out, seat and all, by taking off one nut from each valve. The valves are made of best quality brass, with flat seat and swinging valve hinged to the seat and held firmly by a coil spring. All bearings are amply large and strong, well fitted and finished, and made adjustable to wear. A large pan underneath the cylinders catches all waste water, and is tapped for drainage pipe. This pump crowns the efforts of a lifetime devoted to the perfection of a boiler feeder; it is neat; it is compact; it is strong; it is powerful; it occupies the least possible space; it is simplicity itself.

Fig. 2 shows the Moffatt patent feed-water heater. This heater consists of a series of straight seamless drawn brass tubes contained in an iron shell. The tubes are fixed rigidly to the lower head, with the upper head capped and coming

entirely within the shell, allowing the exhaust steam to pass around it on all sides, thus making the shell and tubes entirely independent of each other with reference to the uneven expansion and contraction.

The liability to strained and leaky joints is thus wholly obviated, the shell being free to expand and contract independent of the tubes. By removing the

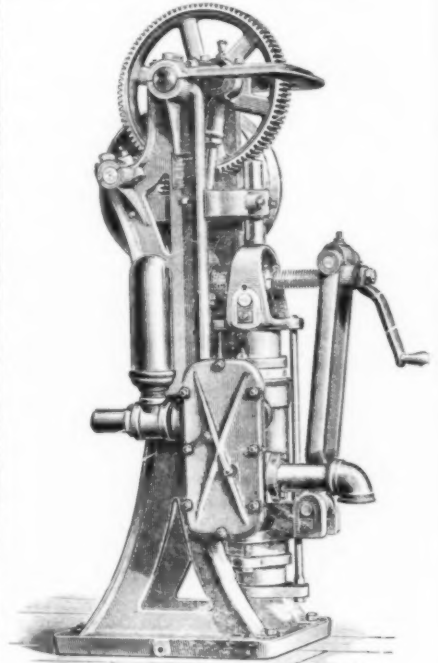


FIG. 1.—MOFFATT BOILER-FEED PUMP.

cap to upper head every tube is easily accessible with tube scraper, and all scale and other matter deposited on their inner surface by the boiling water can then be scraped down into base chamber and blown out by opening check valve next to boiler and turning on boiler pressure. Ordinarily twice a year will suffice for a thorough cleaning of this kind, but the check valve should be opened and heater blown

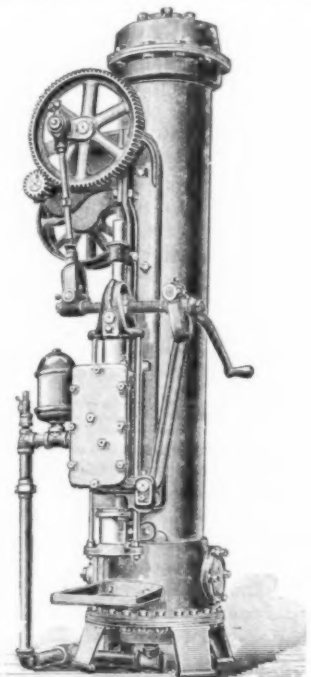


FIG. 2.—MOFFATT DOUBLE-ACTING PUMP AND HEATER.

out once a week if the feed water is muddy. By following this direction closely you will find the feed water goes to the boiler free from mud and the carbonates of lime and magnesia and other impurities which would otherwise be fed into the boilers and deposit there in the form of scale, consuming extra fuel and rendering them liable to burns or blisters. The way to keep your boilers clean is to put pure

water into them. The steam does not come into contact with the water, so there is no trouble from the oil from engine cylinder, so where exhaust or live steam is available this heater furnishes large quantities of boiling hot clean, purified water. The exhaust area inside of heater is one and one-half times the area of exhaust pipe, and adds no back pressure on the engine cylinder, and at the same time is not large enough to expand the exhaust steam beyond useful pressure in absorbing the heat into the feed water.

Fig. 3 shows the Moffatt improved double-acting pump and heater combined. This machine is recommended for all steam plants between 60 and 300 horsepower. It is driven either straight or geared 5 to 1, and, like the single-acting pump, is attached to the heater, making a neat, compact machine, strong and powerful, taking up the same space as the single heater without the pump.

The connections from pump to heater are already made when shipped out, and

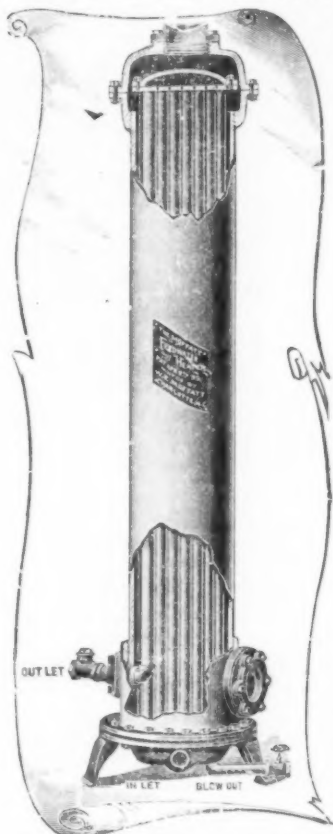


FIG. 3.—THE MOFFATT HEATER.

the only connections needed are from the water supply to the pump and from the heater to the boiler. If cold water is wanted for supplying an elevated tank or for any other purpose, connections are made for delivery between the pump and heater, or the pump can furnish such supply as well as feed the boiler.

The Park Manufacturing Co. of Charlotte, N. C., manufactures the Moffatt equipments.

Pumping Tar and Other Heavy Liquids.

In many industries it is necessary to force heavy, viscous liquids through pipes. This involves difficulties not encountered in ordinary pumping, and requires machinery special in design and construction. When the liquid is heavy, but not adhesive, as in the case of heavy oils, the action can be made fairly satisfactory and efficient by enlarging the valve openings, making the parts of the pump heavier and so arranging the passages of the pump that there is little liability of choking or clogging. When, however, the liquid is a fluid at high temperatures and a gelatinous adhesive paste or a rubbery solid, clinging to all surfaces and

choking openings through which it should pass as the temperature is lowered, a design differing materially from the ordinary pump must be used.

Tar, molasses and cocoa liquor present more obstacles to pumping than any other substances which it has been found feasible to move in this manner. Each of these liquids thickens into an almost solid mass when cold, rendering it very difficult to start the pump if some special pro-

temperature of 300 degrees, but quickly cools off if not properly handled, and coats the retaining valves and walls with layers of an adhesive substance closely resembling finely-divided particles of coke. To overcome the difficulties the ordinary pump arrangement and design is materially changed.

Fig. 2 shows a special designed pump installed by the Deane Company for handling oil-refinery tar at the works of the

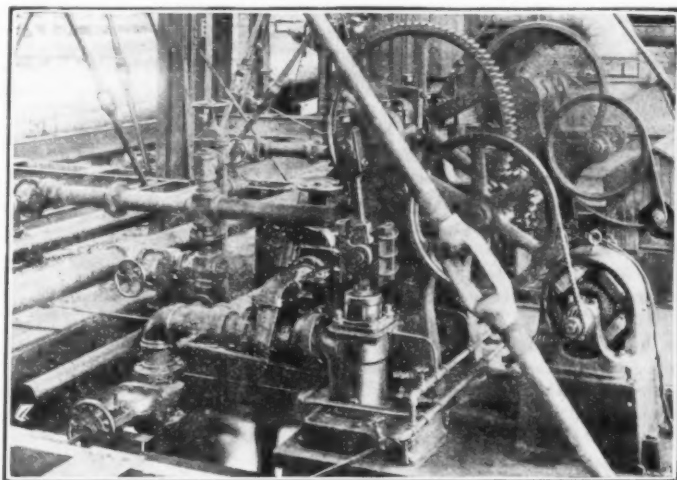


FIG. 1.—PUMPING TAR AND OTHER HEAVY LIQUIDS.

vision is not made and ample power provided. Another action which must be taken into account is the contraction of the area of the passages and valves as the liquid cools, and the consequent throttling which interferes with the liquid's passage and which the pump is forced to overcome. The skin friction of a liquid of this kind creates heat enough to partially alleviate this tendency to throttling when the velocity of the substance is maintained above a certain point and the pipe is not in such a position that the surrounding air will lower the temperature of the liquid below the solidifying point. Although not a common practice, it is well to lag all exposed piping used for conveying heavy oils or other substances of a similar nature.

Gas tar has a number of characteristics rendering it exceptionally difficult to pump. Its condition varies from a solid to a penetrating fluid within a small range of temperature. Two pumps which have proved very efficient in lifting and forcing gas tar were installed a short time ago at the plant of the Maryland Steel Co., Sparrows Point, Md. Fig. 1 shows the pumps in position, the one in the foreground being idle and the one in the background working under its normal load. They were built by the Deane Steam Pump Co. of Holyoke, Mass., and are of the standard triplex type of that company, fitted with ball valves peculiarly adapted to this service. The exclusive use of gate valves in the piping system is also interesting. A very flexible power connection is obtained by the use of the Renolds silent chain and a four-pole alternating-current three-horse-power motor. The gearing consists of an 18-tooth pinion running at 950 R. P. M. and a 120-tooth wheel running at 142 R. P. M. The chain used has links three-quarters inch wide and one and one-half inches long. It transmits the three-horse-power generated at 950 feet per minute, giving an excellent efficiency when the service is considered.

A liquid peculiarly difficult to handle is oil-refinery tar, which is usually very hot when it reaches the pump. There is a large percentage of suspended particles of various sizes present in this tar, and also a certain amount of unrefined paraffin. The tar is sometimes heated to a

Atlantic Refining Co. in Philadelphia. By a new arrangement exceptionally large valve areas are made available, the valves being designed to permit the passage of the substance pumped with the least possible frictional resistance. The suction, discharge and pulsation chambers can be taken apart without unnecessary expenditure of time or labor, and each is in a position where it can be readily reached for cleaning. The pump is of the triplex type, as shown in the figure, and is fitted

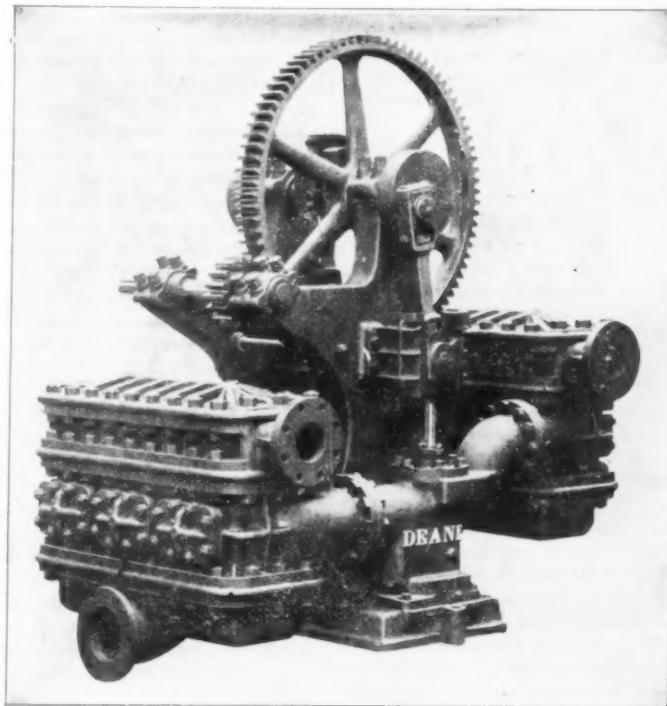


FIG. 2.—PUMPING TAR AND OTHER HEAVY LIQUIDS.

with ball valves, which thorough test has proved best adapted for the passage of heavy substances. There are a number of large handholes for cleaning the valves. The figure shows the rigid crosshead guide system and the strong design of the chambers, rods, pistons and bearings.

Machinery which will pump these adhesive oils and other similar substances can be used in many industries, and will save the laborious processes by which this class of work is generally accomplished.

Big Chimney of Reinforced Concrete.

The Weber Steel-Concrete Chimney Co. of Chicago has contracted to erect a chimney for the Tacoma Smelting Co. at Tacoma, Wash.

This chimney is to be 306 feet 6 inches high from base of foundation to top, and is to have an inside diameter of 18 feet. It is stated it will be not only the tallest concrete chimney ever erected, but also the largest chimney in this country, as far as diameter and height is concerned. The chimney will be built according to the "Weber" system of reinforced concrete. This remarkable piece of engineering work will be watched by the engineers and architects with interest. The total weight of the chimney, including foundation, will be 1659.15 tons, and the chimney is designed to withstand a wind pressure of 50 pounds per square foot. The work is to be commenced at once, and will be completed within 95 working days.

The contract was secured from the Contracting-Engineering Co. of Portland, Ore., which holds the general contract for the complete erection of the Tacoma Company's immense smelting plant.

Experiment With Italians.

Mr. James W. Foshee of Wilmington, N. C., long identified with work for the commercial and industrial development of Wilmington and its immediate territory, calls the attention of the Manufacturers' Record to the experiment made with Italian laborers at the plant of the Cape Fear Fisheries Co. The experiment has been so satisfactory that the officials of the company propose to employ a larger number of Italians in the spring when the next fishing season commences, and the Evening Dispatch of Wilmington intimates that an effort will be made to establish a permanent colony of Italians at Wilmington and to settle them among the farmers of the State. The Italians were

engaged at the fisheries plant because of the unreliability of the negroes.

Financiers of New York and Rio Janeiro are interested in a plan for the establishment of an extensive steamship service for exclusive trade between Brazil and the United States ports, including New Orleans. Jose Carlos de Carvalho, commissioner-general of Brazil to the Louisiana Purchase Exposition, is one of those interested.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

BOLL-WEEVIL CONVENTION.

Professor Stubbs Discusses the Plan of a Neutral Zone.

In discussing the cotton convention to meet at Shreveport, La., December 12 Dr. William C. Stubbs, director of the Louisiana experiment station, said at New Orleans:

"The Shreveport convention is one of the best movements ever undertaken to devise means to stop the invasion of the boll-weevil. It should not adjourn until some practical measures have been devised for the eradication of the pest in the infected districts and to prevent its further invasion of Louisiana territory. Texas and Louisiana are the only Southern States which suffer from it.

"It has not yet made its appearance in any other sections of the cotton belt, and, necessarily, the field of operations will have to be confined to these States. The undertaking is a tremendous one, but science and intellect can accomplish much.

"The question is one which has agitated planters for years. Many things have been tried, but so far success has rewarded the efforts of agriculturists only in small part. Unless the spread of the insect invasion is stopped it will not be long before it shall have made its appearance in new sections of the cotton belt.

"The idea to suspend the cultivation of cotton along a certain zone is a good one, to my mind, but I am not sure if this will prove practicable. It means a great deal. It means that the area now planted with cotton will either have to be left devoid of a crop or that a diversified crop will have to be supplied. This, too, has its drawbacks in view of the fact that this section of the country is prospering along all lines, and any change in this direction might not be just the thing at this time. Lands are commanding a good price, settlers have their eyes on the State, and any disturbing elements will naturally retard some would-be settlers.

"However, something will have to be done, and the sooner the better. The great question before the convention will be to determine what means are to be employed for a successful fight against the weevil. If it is determined that it will be more practicable to suspend a crop along a belt around the region which it at present infected it will be largely in the nature of an essay; but, of course, no one is in a position at this time to make any predictions as to the outcome.

"A diversified crop has its advantages, but it has its drawbacks when it comes to introducing it in a section which has been devoted to the cultivation of one staple. This may be done effectively in many sections, however, for the soil of Louisiana is a fertile one. It is not a question of soil so much as it is a question of the expediency.

"I am satisfied that some plan will be determined upon. The convention will bring together men in every line of the cotton industry, from the planter to the manufacturer. There will not be a dearth of brains, and whatever remedial measures will be adopted may be relied upon."

The Dublin (Ga.) Cotton Mills made a shipment of goods to China last week.

A Cotton Survey.

In an issue of 112 pages the Atlanta Constitution published last Sunday a cotton-harvest edition covering comprehensively and entertainingly the agricultural, manufacturing and commercial phases of cotton in the past, present and the future. The edition, which is profusely illustrated and has a frontispiece poem, "The Marches of the Fields," by Frank L. Stanton, contains a survey of the course of the staple from seedling to the mills by N. L. Willett; its statistical position and the means for maintaining the supremacy of the South in its production, by Richard H. Edmonds; the urgent value of textile training, by William N. Randle; the cotton plantation of the Revolution, by J. W. Du Bose; the compress business, by Lucille Webb Banks; Southern water-power as a textile asset; the biography of cotton, by Helen Harcourt; a study of cotton at the St. Louis Exposition, by John C. Small; Pelzer as a model cotton-mill community, by Leonora B. Ellis; achievements on a one-horse Georgia farm, by E. W. Carroll; the New Orleans Cotton Exchange, by Marie Bankhead Owen; insects which prey on cotton, by Wilmon Newell; incidents of ante-bellum plantations, by Dr. R. J. Massey; the world against the South in cotton, by Edward N. Vose; by-products of cotton, by George E. Lowe; immigration to the South, by M. V. Richards; the boll-weevil; running the blockade with cotton, by John Williams, and descriptions of some Georgia textile centers.

Southwestern Cotton Mills Locates.

In its issue of November 10 the Manufacturers' Record referred to the plans of New England mill men and capitalists for the establishment of several cotton factories in the South. It was stated that the Southwestern Cotton Mills, one of several companies incorporated by the parties, would probably locate in Arkansas. The Southwestern Cotton Mills has now completed the purchase of the plant formerly known as Steele's Cotton Mills at Mammoth Springs, Ark., and is preparing to put it in operation. Manufacturing will begin with 11,500 spindles in position, and it is contemplated to increase to 18,000 spindles in the near future. Messrs. Arthur S. Phillips, 22 Bedford street, Fall River, Mass.; W. B. Edgar, also of Fall River, and Raymond D. Borden of Taunton, Mass., incorporated the company. Capital stock is \$100,000. (It is reported that H. I. Harriman of Boston, Mass., has been elected president of the Southwestern Cotton Mills.)

The Cotton Movement.

In his report for November 25, Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 86 days of the present season was 5,711,023 bales, increase over the same period last year of 989,869; exports were 21,881,262 bales, an increase of 440,818; takings by Northern spinners 734,941, an increase of 182,797; by Southern spinners 628,980 bales, an increase of 67,206 bales.

Textile Notes.

F. E. Brown of Roanoke, Va., has purchased for \$2500 the Fincastle Woolen Mills at Fincastle, Va. He will overhaul the plant and put it in operation.

Messrs. H. Runge & Co., Otto Buchel and J. A. Graves, all of Cuero, Texas, have leased and will operate the Cuero Cotton Mills, a plant of 5000 spindles and 160 looms.

A. D. Woods of Columbia, Ala., will develop water-power and build a cotton mill. He has completed the reconstruction of an old dam, the new one being

of concrete, and other arrangements are in progress.

Messrs. C. F. James and J. B. Neill of Filbert, S. C., are organizing a company for the purpose of building a knitting mill. They have decided upon a capital stock of \$10,000.

The Payne Cotton Mills at Macon, Ga., will be put in operation by the Bibb Manufacturing Co. of that city. Experts are now engaged in overhauling the plant and preparing it to resume production. The equipment is 6000 spindles, etc.

It has been announced that another large cotton mill will be built in Spartanburg county, South Carolina, probably at or near Spartanburg. The details are now being considered. Names of interested parties will be stated later.

D. E. Rhyne of Lincolnton, N. C., has purchased and will continue in operation the Lincolnton Cotton Mill, a plant of 7000 ring spindles producing fine yarns. Mr. Rhyne now owns three mills at Lincolnton, all manufacturing fine yarns.

S. H. McRae of Fayetteville, N. C., has purchased the Cumberland Cotton Mills at Cumberland, N. C. The price paid is reported as \$10,000, subject to a mortgage of \$20,000. The plant will be operated under the management of J. Frederick Houston of Philadelphia, Pa. It includes 2736 spindles, preparatory machinery to suit, 75-horse-power water-power plant, etc.

The Holston Manufacturing Co., Lenoir City, Tenn., will build a 10,000-mule-spindle yarn mill, not a 5000-spindle plant as stated last week. Contracts for the machinery will be awarded next month. No decision has been made as to the extent of the additions to the knitting mill, now operating 400 machines. Product is dyed and finished. Steam is the motive power used.

QUOTATIONS OF COTTON YARNS.

By Paulson, Linkroom & Co., New York, Philadelphia and Chicago.
November 29.

No. 10s-1 and 12s-1 warps.....	16 1/2 @ 17
No. 14s-1 warps.....	17 1/2 @
No. 16s-1 warps.....	18 @
No. 20s-1 warps.....	19 @
No. 22s-1 warps.....	19 1/2 @
No. 26s-1 warps.....	20 @
No. 6s to 10s yarn.....	16 1/2 @
No. 12s-1.....	17 @
No. 14s-1.....	17 1/2 @
No. 16s-1.....	18 @
No. 20s-1.....	19 @
No. 22s-1.....	19 1/2 @
No. 26s-1.....	20 @
No. 8s-2 ply soft yarn.....	17 @
No. 10s-2 ply soft yarn.....	17 1/2 @
No. 8s-2 ply hard.....	17 @
No. 10s-2 ply hard.....	17 1/2 @
No. 12s-2 ply hard.....	17 1/2 @
No. 14s-2 ply.....	18 @
No. 16s-2 ply.....	18 1/2 @
No. 20s-2 ply.....	19 1/2 @
No. 24s-2 ply.....	20 1/2 @
No. 26s-2 ply.....	21 @
No. 30s-2 ply yarn.....	22 @
No. 40s-2 ply.....	25 @
No. 8s-3, 4 and 5 ply.....	16 1/2 @ 17
No. 20s-2 ply chain warps.....	20 @
No. 24s-2 ply chain warps.....	21 @
No. 26s-2 ply chain warps.....	21 1/2 @
No. 30s-2 ply chain warps.....	22 @
No. 18s-3 ply hard twist.....	18 1/2 @
No. 20s-3 ply hard twist.....	19 1/2 @
No. 26s-3 ply hard twist.....	21 @

Very firm and active.

Trade with Norway.

Mr. Jens Thorns, No. 3 Elisenbergveien, Christiania, Norway, writes to the Manufacturers' Record that he desires to get in touch with American exporters of oleo, which has extensive use in Scandinavia. He says that large quantities of cottonseed oil are used in the manufacture of butter, and that 27 Norwegian butter factories buy about 150,000 kilos monthly, nearly all the leading houses of the United States being represented at Christiania. The oil is sold on the basis of sample. He adds that there might be some business done in raw rice, and that syrup is regarded to be too dear for direct importation from America. The business has been done through England and Scotland, and dark syrup is mostly imported for use in breweries.

LUMBER

A Virginia Lumber Plant.

Virginia's lumber industry continues to advance rapidly, and among the new corporations recently organized in the timber districts is the Stiegel Lumber Corporation, offices at Harrisonburg, Va. This company has an authorized capital stock of \$50,000, but will invest considerably more than that amount in its developments. It owns about 75,000 acres of timber land in Augusta county, 11 miles of tramways and is building 21 additional miles, and has a complete modern equipment for taking out the lumber. The company has a saw-mill equipped with modern band-saw apparatus for the daily production of 40,000 feet of lumber, and intends to add stove and heading machinery. The bark from the mill will be taken by the J. P. Houck Tanning Co. at Harrisonburg. The Stiegel Lumber Corporation has the following officers: President, John C. Stiegel; vice-president, Robert McM. Gillespie (president of the Chesapeake & Western Railway), and secretary-treasurer, C. B. Williamson (auditor of the Chesapeake & Western Railway). Among the directors is C. S. Walton of Philadelphia, vice-president of the J. P. Houck Tanning Co. The Stiegel Company is prepared to take estimates on 60 and 100-ton railroad-track scales, 10-ton narrow-gauge logging locomotive, rim and bending machinery, stove and heading machinery, etc., new or second-hand.

Lumber Notes.

Proposals have been asked by the government for several million feet of lumber for use in Panama canal construction.

It is estimated that 14 lumber concerns at Chattanooga, with a combined capital of \$500,000, have a daily output of 200,000 feet of lumber.

The Bancroft, Ross & Sinclair Co. of New Orleans will build a lumber mill on the Santa Fe Railroad at a point 20 miles north of Jasper, Texas.

More than 16,000,000 feet of lumber has been shipped from Jacksonville, Fla., this month in addition to 32,000 crossties, 23,000 barrels of naval stores and more than 800,000 shingles.

The National Mahogany Co. of Mobile, Cincinnati and New York has let a contract for the building of a large wharf near Mobile, and will expend a large sum in improving its facilities at Cuban and Central American ports.

The Yellow-Pine Sash, Door and Blind Manufacturers' Association, which has a membership in Georgia, Alabama, Mississippi and Arkansas, will hold its semi-annual convention at Augusta, Ga., in January. Mr. David Woodword of Atlanta is president; Mr. J. H. O'Neill of Rome and Mr. J. H. Scruggs of Birmingham, vice-presidents, and Mr. J. D. Wood of Atlanta, secretary and treasurer.

Wants Wool-Spinning Plant.

Nicolas Espinosa, No. 190 Calle de Freire, Concepcion, Chili, in announcing a purpose to subscribe to the Manufacturers' Record, writes that he desires to buy at a reasonable price a complete plant for making wool thread, including three machines to arrange the wool from which it will emerge without twist, one machine with 200 or 300 spindles from which the wool will issue in the form of properly twisted yarn, and a motor of from six to eight horse-power using lightwood as fuel.

Miguel R. Valladores, Calle Setinia Avenida, Comoyaguela, Tegusigalpa, Honduras, Central America, informs the Manufacturers' Record that he desires to improve his commercial connections with the United States.

Construction Department

TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY.

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state as "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

* Means machinery, proposals or supplies wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ADDRESS FULLY.

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

WRITE DIRECTLY.

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

BALTIMORE BUILDING NOTES.

Business Buildings.

Baltimore—Warehouses.—James Ingram, 109 Hanover street, has awarded contract to Wells Bros. & Co., builders, 344 North Charles street, for the construction of nine warehouses to be located at northeast corner of Lombard and Hanover streets, after plans and specifications by Ellicott & Emmart, architects, 323 North Charles street. Structures to be five stories high with basements, 160x175.5 feet; brick or concrete blocks with granite base and terra-cotta trimmings; concrete foundations; steel beams, girders and columns; slag roofing; metal frames and sashes glazed with wireglass; galvanized-iron cornices and skylights; vault lights; reinforced concrete archway; electric wiring and fixtures; sanitary plumbing. Heating systems, 10 elevators and nine pavement lifts not included in contract. These buildings previously mentioned.

Baltimore—Hotel.—The Merchants' Hotel Co., J. Albert Hughes of the Daniel Miller Company, 109 Hanover street, chairman of building committee, has selected Wyatt & Nolting, architects, Builders' Exchange Building, 2 East Lexington street, to prepare plans and specifications for hotel building to be erected on Howard street near Baltimore street. Structure to be seven stories high with basement, 50.13x142 feet; ornate front; reinforced concrete or steel-frame fireproof construction with curtain walls; electric wiring and fixtures; sanitary plumbing; steam-heating system; power elevators; cost to be about \$15,000. Charles Gilpin, builder, 17 East Saratoga street, has been selected to construct the building. This building previously mentioned.

Baltimore—Warehouse.—Mrs. S. M. Williams has awarded contract to B. F. Bennett, builder, 123 South Howard street, for the construction of warehouse to be located at 7 North Liberty street, after plans and specifications by Henry Brauns, 113 West Saratoga street. Structure to be four stories high with basement, 25x55 feet; brick with

stone trimmings; concrete foundation; steel beams; electric wiring and fixtures; sanitary plumbing; steam-heating system; power elevator. This building previously mentioned.

Baltimore—Dwelling.—Wm. T. Pfeiffer, Edmondson and Walnut avenues, has commissioned Jacob F. Gerwig, architect, 16 Clay street, to prepare plans and specifications for dwelling to be located on Edmondson avenue. Structure to be two stories high, 40x40 feet; frame construction on stone foundation; shingle roofing; electric wiring and fixtures; sanitary plumbing; heating system; cost to be about \$4000.

Baltimore—Store Building.—Mrs. Annie E. Mills, 1901 Barclay street, has awarded contract to Joseph Schamberger, builder, 2215 East Baltimore street, for the construction of store building to be located at 106 West Lombard street. Structure to be three stories high with basement, 14x42 feet; brick with granite base and stone trimmings; concrete foundation; steel beams; tin roofing; galvanized-iron cornice; fire shutters; gas fixtures; sanitary plumbing; cost to be about \$3000.

Baltimore—Dwellings.—Elias A. Blackshear, 2542 Eutaw Place, has awarded contract to Martin H. Murray, builder, 2601 West North avenue, for the construction of 22 dwellings to be located on Park Heights avenue, near Pimlico road. Structures to be two stories high, 14.4x53.8 feet; brick with stone trimmings; slag roofing; galvanized-iron cornices; gas fixtures; sanitary plumbing; furnace-heating systems; cost to be about \$40,000.

Baltimore—Office Building.—Revised plans and specifications have been made by Parker & Thomas, architects, 612 North Calvert street, for the office building for the Maryland Life Insurance Co., 410 West Fayette street, to be located at 8 and 10 South street. George A. Fuller Company, 203 North street; James Stewart & Co., 319 North Charles street, and one other firm are estimating on the revision. Bids to be in November 29. This building previously mentioned.

Baltimore—Office Building.—G. Howard White, real-estate broker, 227 St. Paul street, representing clients, has secured an option on the old site of the Baltimore & Ohio Railroad Building at northwest corner Baltimore and Calvert streets. The prospective purchasers contemplate the erection of a 14-story fireproof office building on the site, which is 102x104 feet. The contract for the construction of the building will be awarded to Chas. Gilpin, builder, 21 East Saratoga street. It is reported that Wyatt & Nolting, architects, Builders' Exchange Building, 2 East Lexington street, will make the plans and specifications for the building.

Baltimore—Warehouse.—The Keyser Estate, R. Brent Keyser, trustee, 14 East Mt. Vernon Place, has commissioned Archer & Allen, architects, Central Savings Bank Building, 3 East Lexington street, to prepare plans and specifications for warehouse to be located at northeast corner Lombard and Liberty streets. Structure to be five stories high with basement, 30x102 feet; brick with limestone trimmings; concrete foundation; steel beams; electric wiring and fixtures; sanitary plumbing; steam-heating system; power elevator.

Baltimore—Dwellings.—Frederick Oldham, Park avenue and Fayette street, has awarded contract to C. C. Watts, builder, 113 Hamilton street, for the construction of two dwellings to be located at Republic and Gorsuch avenues after plans and specifications by Henry J. Tinley, architect, 421 St. Paul street. Structures to be three stories high with basements; brick with bluestone trimmings; tin roofing; galvanized-iron cornices; gas fixtures; sanitary plumbing; heating systems; cost to be about \$5000.

Baltimore—Restaurant.—Further details have been obtained concerning restaurant for Vincent Piplone, 702 East Baltimore street, to be erected at northeast corner Lombard and Grant streets after plans and specifications by Hoyt & Mackintosh, architects, 11 East Pleasant street. Structure to be three stories high, 19.3x30.6 feet; brick with granite base and sandstone trimmings; concrete foundation; steel beams; slag roofing; galvanized-iron cornice; metal ceilings; electric wiring and fixtures; sanitary plumbing; steam-heating system. Charles L. Stockhausen, 414 East Fayette street; George R. Heath, 314½ Courtland street; Francis J. Fox, 1811 East North avenue, and Lawrence J. Schoenlein, 2217 East Baltimore street, have been selected to estimate on the construction. Estimates to be in December 1.

Baltimore—College Building.—Plans and specifications have been made by Archer & Allen, architects, Central Savings Bank Building, 3 East Lexington street, for building for the Johns Hopkins Medical School to be located at Broadway and Monument street. Structure is to be two stories high, 36x80 feet; brick with stone trimmings.

Baltimore—Warehouse.—Mrs. Helen Linthicum has awarded contract to Leonard F. Fowler, builder, 101 Dover street, for the construction of warehouse to be located at 23 South Calvert street after plans and specifications by Herbert G. Crisp, architect, Builders' Exchange Building, 2 East Lexington street. Structure to be four stories high, 19x44.6 feet; brick with granite base and stone trimmings; concrete foundation; steel beams; slag roofing; vault lights; metal frames and sashes glazed with wireglass; elevator. Plumbing, electric wiring and heating system not included in contract. Cost to be about \$5000.

Baltimore—Warehouse.—Helen E. and Adeline A. Buck, 2018 North Charles street, have engaged the Woodruff-McLaughlin Company, constructing engineers and architects, 100 East Lexington street, to prepare plans and specifications for and construct warehouse to be located at 414 and 416 East Pratt street. Structure to be four stories high, 27x100 feet, with wing two stories high, 45x67 feet; red and gray Roman brick with granite base and stone trimmings; concrete foundation; steel beams; slag roofing; metal frames and sashes glazed with wireglass; electric wiring and fixtures; sanitary plumbing; heating system; electric elevator; cost to be about \$15,000.

Baltimore—Warehouse.—Jacob Schoeneman, pants manufacturer, 319 West Baltimore street, has commissioned Louis Levi, architect, Central Savings Bank Building, 3 East Lexington street, to prepare plans and specifications for warehouse to be located in the rear of his present building and facing on German street. Structure to be five stories high with basement, 30x72.6 feet; brick with ornamental terra-cotta trimmings; concrete foundation; steel beams; electric wiring and fixtures; sanitary plumbing; steam-heating system.

Baltimore—Church.—Further details have been obtained concerning church for the Seventh Baptist Church to be located at northwest corner North avenue and St. Paul street after plans and specifications by E. H. Glidden, architect, Wilson Building, 301 North Charles street. Structure to be one story high with basement, 69.2x79.7 feet, with spire 129.5 feet high; Beaver Dam marble exterior; steel beams and columns; cast-iron columns; slate roofing. D. W. & G. H. Thomas, 419 North Charles street; Henry S. Rippel, 7 Clay street; A. K. Boteler, 1306 Shields alley; Thomas L. Jones & Son, 410 West Saratoga street; Wm. Steele & Sons, 17 West Saratoga street; Brady & Watters, 532 St. Paul street, and John A. Sheridan Co., 321 North Holliday street, have been selected to estimate on the construction. Bids to be in about December 9.

Baltimore—Warehouse.—Further details have been obtained concerning warehouse for Walden C. Nimmo, 327 North Calvert street, to be erected at 109 and 111 Cheapside, after plans and specifications by J. E. Laferty, architect, Builders' Exchange Building, 2 East Lexington street. Structure to be four stories high, 42x66 feet; brick with granite base and stone trimmings; concrete foundation on piling; steel beams; tin roofing; copper cornice; vault; metal frames and sashes glazed with wireglass; sanitary plumbing; two hand elevators. Frederick Decker & Son, 1209 East Biddle street; John A. Sheridan Co., 321 North Holliday street; C. S. M. Williamson, 18 East Lexington street; Joseph Hellen, 101 Dover street; M. L. Wright, 324 West Biddle street; John T. Buckley, 906 Bolton street, and Burnham & Wells, Builders' Exchange Building, 2 East Lexington street, have been selected to estimate on the construction. Estimates to be in December 3.

Baltimore—Store Building.—The estate of Valencia Dukehart, Joseph D. Chesney, trustee, 25 East Pratt street, has awarded contract to Joseph Schamberger, 2215 East Baltimore street, for the construction of store building to be located at 230 East Baltimore street. Structure to be three stories high with basement, 16.10x90 feet; brick with granite base and galvanized-iron trimmings; concrete foundation; steel beams; tin roofing; galvanized-iron cornice; fire shutters; electric wiring and fixtures; sanitary plumbing; steam-heating system; cost to be about \$6000.

Baltimore—Office Building.—The Keyser estate, R. Brent Keyser, trustee, 14 East Mt. Vernon Place, has commissioned Wyatt & Nolting, architects, Builders' Exchange Building, 2 East Lexington street, to prepare plans and specifications for office building to be located at southeast corner of Calvert and German streets. Structure to be nine or ten stories high with basement, 82.5x110 feet; steel-frame fireproof construction; electric wiring and fixtures; sanitary plumbing; steam-heating system; power elevators.

Baltimore—Warehouse.—Elias Schmidt, 300 East Pleasant street, and Lewis Ring, 316 North Charles street, have awarded contract to Frank T. Maguire, 1710 Sansom street, Philadelphia, Pa., for the construction of warehouse to be located at 8 South Liberty street, after plans and specifications by Louis Levi, architect, 704 Union Trust Building, Charles and Fayette streets. Structure to be four stories high with basement, 20x83 feet; Pompeian brick with granite base and copper trimmings; concrete foundation; steel beams and girders; slag roofing; prismatic glass; vault lights; copper cornice; galvanized-iron skylight glazed with prismatic glass; fire shutters; sanitary plumbing. Heating apparatus, elevator, pavement lift, office partitions, electric-light wiring, tubing and gas and electric fixtures not included in contract. This building previously mentioned.

Baltimore—Warehouse.—Further details have been obtained concerning warehouse for Mrs. Lydia H. Howard and Miss Mary W. Davis, Alexander Yearley & Sons, agents, Builders' Exchange Building, 2 East Lexington street, to be erected at Calvert, Water, Chesapeake and Lombard streets, after plans and specifications by Ellicott & Emmart, architects, 323 North Charles street. Structure to be six stories high, 33.4x103.8 feet; light and red brick with ornamental terra-cotta trimmings; concrete foundation on piling; steel girders and columns; slag roofing; galvanized-iron cornice and skylights; vault lights; electric wiring and fixtures; sanitary plumbing. Heating system and two elevators not included in contract. James Stewart & Co., 319 North Charles street; Edward D. Preston, 140 West Fayette street; Wells Bros. Co., 344 North Charles street; Wm. Steele & Sons, 17 West Saratoga street; John Cowan, 166 West Madison street; Burnham & Wells, Builders' Exchange Building, 2 East Lexington street, and George Bunnecke & Sons, 305 St. Paul street, have been selected to estimate on the construction. Date for submitting estimates will be announced later.

Baltimore—School Building.—The managers of the Egenton Female Orphan Asylum, 1002 Madison avenue, has appointed Wm. H. Dix, 9 East Lombard street; W. W. Spence, 1206 St. Paul street; Bernard C. Steiner, 301 North Charles street, and Douglas M. Wylie, 451 North street, as a building committee to have charge of the new school building to be located on Cedar avenue. Preliminary sketches for a four-story building have been prepared by Baldwin & Pennington, architects, 311 North Charles street.

Manufacturing Buildings and Other Enterprises.

Baltimore—Carriage Factory.—Frank W. Sandruck, carriage manufacturer, Howard and Tyson streets, has commissioned Henry J. Tinley, architect, 421 St. Paul street, to prepare plans and specifications for building to be located on Howard and Tyson streets. Structure to be four stories high, 27x75 feet; brick with stone trimmings; concrete foundation; steel beams; slag roofing; galvanized-iron cornice; sanitary plumbing.

Baltimore—Bell Foundry.—Wilson M. Cary, Jr., 1209 St. Paul street, has purchased the bell-manufacturing plant of the Henry McShane Manufacturing Co. at \$20,000, and will operate it.

Baltimore—Stone and Marble Works.—The Mullan-Harrison Company has been incorporated, with an authorized capital stock of \$10,000, for cutting, carving and finishing marble, granite and other stones, by John B. Mullan, 505 North Paca street; George W. Harrison, 505 North Paca street; Susie V. Mullan, William Reese and Read A. McCaffrey.

Baltimore—Publishing Plant.—The German Correspondent, Edward Raine, proprietor, 411 St. Paul street, will erect on Postoffice avenue, near Baltimore street, a four-story building 40x50 feet. Charles M. Anderson, architect, 333 North Charles street, has furnished preliminary sketches for the building.

Baltimore—Pipe-line System.—Chief Engi-

near George W. Horton of the municipal fire department has furnished an estimate for the proposed pipe-line system to afford additional facilities for protecting the business district from fire loss. The estimate includes pipe line with hydrants, \$456,250; pumps, gas engines and electrical appliances, \$180,000; building, ground and power-house, \$75,000; buildings and grounds for hose companies, \$60,000; five hose wagons, \$9,000; hose, \$8,000, and other items, making a total of \$810,250. The system will cover an area of 365 acres.

Baltimore—Barrel Factory.—Eugene Blake, barrel manufacturer, 232 Buchanan's wharf, has purchased the property located at 114 Exchange alley, and it is reported that he will erect a barrel factory on the site, which is 10x49 feet.

Subbids Wanted.

Mention of contractors wanting subbids on construction work and material will be found, when published, in the "Machinery Wanted" column on another page under the heading of "Building Equipment and Supplies."

ALABAMA.

Attalla—Water-power Electrical Plant.—Etowah Light & Power Co. has been incorporated, with \$24,000 capital, and A. L. Du Pree, president; J. R. Brown, vice-president, and Adolphus Brown, secretary-treasurer. Company has purchased water-power development, and will build electric plant to furnish electricity for lighting and power.

Birmingham—Candy Factory.—J. F. Buchanan, W. L. Howard and L. A. Buchanan have incorporated the J. F. Buchanan Candy Co., with \$10,000 capital, to operate a candy factory.

Birmingham—Iron-ore Mines.—The Gray Ore Iron Co., T. G. Bush, president, will open new iron-ore mines in Eastern Alabama. The Louisville & Nashville Railway will build a three-quarter-mile extension track to the property, thus providing shipping facilities.

Birmingham—Bottling Plant.—The Elephant Bottling Works has incorporated, with \$6,000 capital, to manufacture and bottle soda water, ginger ale, etc.; incorporators, J. H. Davis, A. D. Burber and R. H. Burber.

Columbia—Cotton Mill and Power Plant.—A. D. Woods will develop water-power and erect cotton factory. Dam has been completed and buildings are being erected.

Ensley—Water-works.—City is contemplating the construction of water-works, the supply to be obtained from the Warrior river, a distance of 12 miles. About \$150,000 will be invested. Address City Engineer Burns.

Guntersville—Bridge.—Nashville, Chattanooga & St. Louis Railway Co. states there is no truth in the report mentioned last week that it would build a bridge across the Tennessee river near Guntersville.

Huntsville—Telephone System.—Inter-County Telephone Co. has been incorporated, with \$200,000 capital, and privilege of increasing to \$30,000, for constructing telephone system.

Mobile—Lumber Company.—Dixie Lumber Co. has incorporated with \$15,000 capital. James A. Kirk is president; R. G. Byrne, vice-president, and F. M. Jeffries, secretary-treasurer.

Mobile—Timber Company.—W. H. H. Greenwood, Mrs. E. O. Greenwood, W. D. Greenwood and V. M. Greenwood have incorporated the W. H. H. Greenwood Timber Co., with \$20,000 capital.

Montgomery—Stave and Lumber Company. Nixon Stave & Lumber Co. has been incorporated with \$50,000 capital. Robert Nixon of Montgomery is president, and J. R. Nixon of New Orleans, La., secretary-treasurer. Company will at once arrange for the establishment of box factory at a cost of \$20,000.

Montgomery—Brewery Improvements.—The Capital Brewing & Ice Co. will expend about \$50,000 in improvements to its plant in North Montgomery, including doubling of capacity of bottling works, installing new and improved machinery, etc., at a cost of \$20,000; erection of brewhouse and the construction of additional cellars at a cost of \$30,000, etc.

Woodstock—Iron-ore Mines.—Reports state that the Central Coal & Iron Co. has purchased 260 acres of land containing iron ore at \$62,000, and will at once arrange for its development.

ARKANSAS.

Batesville—Water-power-Electrical Plant.—Batesville Power Co. has incorporated, with \$10,000 capital, to develop water-power and transmit same electrically for manufacturing purposes.

Bearden—Telephone System.—Incorporated: Bearden Telephone Co., with \$200,000 capital. Wm. M. Gatling is president; Jeff Gatling, secretary, and Wm. Gatling, Jr., treasurer.

Benton—Concrete Building-Block Factory.—Arkansas Concrete Stone Co., previously re-

ported incorporated to manufacture artificial stone for building purposes, contemplates doubling the present capacity of plant, which will be 500 surface feet of wall.*

Helena—Transportation Company.—Rees-Porter Transportation Co. has been incorporated with \$10,000 capital by R. W. Porter, C. E. Strider, J. B. Ellis and John L. Moore to operate steamboats, barges, etc., in the Mississippi river.

Little Rock—Phosphate Plant.—Reports state that P. S. Williams, representing the Arkansas Phosphate Co. of Batesville, Ark., is investigating site for the erection of plant to replace one recently burned at Batesville, Ark.

Mammoth Spring—Cotton Mill.—The Southwestern Cotton Mills, reported incorporated recently with \$100,000 capital stock, has acquired and will operate the plant formerly known as Steele's Cotton Mills. Manufacturing will begin with 11,500 spindles in position, and it is contemplated to increase this to 18,000 in the near future. H. I. Harriman of Boston, Mass., is president.

Pine Bluff—Building Stone.—M. A. Austin, J. A. Holmes and associates will organize \$25,000 company to manufacture hydraulic pressed stone for building purposes.

Pocahontas—Electric-light Plant.—S. C. Dowell of Walnut Ridge, Ark., and associates have definitely decided to erect \$25,000 electric-light plant reported last week as contemplated. Machinery has been purchased.

Siloam Springs—Telephone System.—Chartered: Siloam Springs Telephone Co., with \$50,000 capital. R. J. Alfrey is president, and M. T. Stahl, secretary-treasurer.

Springdale—Pressing Company.—Springdale Pressing Co. has incorporated, with \$200,000 capital. A. L. Emery is president and general manager, and Geo. W. Randall, secretary-treasurer.

Yardelle—Zinc Mines.—Belle of Wichita Mining Co., previously reported incorporated with \$350,000 capital, is developing zinc mines with a daily capacity of 100 tons. Wm. Ferree of Mt. Hersey, Ark., is president.

Yellville—Mercantile.—J. S. Cowdrey Mercantile Co. has incorporated with \$20,000 capital. J. S. Cowdrey is president; Ernest E. Cowdrey, vice-president; T. L. Bond, secretary-treasurer, and R. F. Bond, general manager.

FLORIDA.

Graceville—Water-works.—Ludwig & Co., Atlanta, Ga., are engineers in charge of water-works previously reported to be built by the Graceville Electric Light & Water Co., recently incorporated with \$20,000 capital and privilege of increasing to \$100,000.

Jacksonville—Real Estate.—Miller & Hampton Realty Co. has been incorporated, with \$50,000 capital. Phillip Miller of Jacksonville is president; B. F. Hampton of Gainesville, Fla., vice-president and manager, and C. N. Griffin of Jacksonville, secretary-treasurer.

Lanark (P. O. Carrabelle)—Improvement Company.—Lanark Improvement Co. has been incorporated, with \$25,000 capital, by J. P. Williams of Savannah, Ga.; J. W. Callahan, R. L. Uzzell, W. M. Legg and John E. Donaldson of Bainbridge, Ga., to develop Lanark Springs as a resort. Electric lights, steam heat, etc., are being installed.

Pensacola—Water-works.—C. H. Bliss can be addressed for information regarding company reported last week to be organized to construct and operate water-works.

Perry—Water-works and Fire Department. Town contemplates issuing \$15,000 of bonds for water-works and fire department. Address Town Clerk.

Tampa—Sewerage System and Paving.—City has voted affirmatively the proposed \$200,000 of bonds for the construction of sewerage system and street paving. S. L. Higlow, clerk Board of Public Works.

GEORGIA.

Augusta—Mercantile.—Incorporated: Howe & Co., with \$500 capital, by Charles H. Howe, Williams K. Young, Jr., J. Leo McAuliffe, Robert A. Irvin and Thomas D. Cary.

Brunswick—Timber Company.—Chartered: Hoskins Burton Timber Co., with \$50,000 capital, by J. T. Colson and others.

Canton—Water-power-Electrical Plant.—F. P. Burtz, P. P. Du Pree of Canton, A. J. Warner, W. A. Carlisle of Gainesville, Ga., and C. M. Merrick of New Brighton, Pa., have incorporated the Etowah Power Co., with \$10,000 capital, to develop water-power and transmit same by electricity.

Cedartown—Structural-Iron Works.—Reports state that the Chamber of Commerce is negotiating with parties relative to the removal of structural-iron works to Cedartown.

Lawrenceville—Bag Factory.—Allen Manu-

facturing Co. will establish plant for the manufacture of burlap and all kinds of bags.

Macon—Sash, Door and Blind Factory.—Willingham Sash & Door Co. will arrange at once for the erection of brick factory building to replace plant reported burned last week at a loss of \$25,000.*

Rome—Foundry and Warehouse.—Hanks Foundry Co. is installing machinery for increasing capacity. Company is also erecting warehouse at a cost of \$6,000.

Savannah—Marine Railway.—Savannah Shipbuilding, Dry-Dock & Repair Co. has been incorporated, with \$10,000 capital, and privilege of increasing to \$500,000, by John Rourke, James A. Rourke and John Rourke, Jr. John Rourke & Sons were reported last month as having purchased and would enlarge the marine railway of the Seaboard Air Line Railway on Hutchinson's Island.

Savannah—Drug Factory.—A. B. Girardeau and E. S. Girardeau have incorporated the Johnson's Chill & Fever Tonic Co. with \$250,000 capital to manufacture medicines.

Shadyside—Agricultural-Implement Works. It is rumored that A. F. Allen will organize stock company to manufacture a new patent cotton planter and fertilizer distributor.

Whigham—Machine Shop.—It is reported that Prof. A. S. Powell will establish machine shop to manufacture the material for completing a car step which he has patented for use on railroad trains.

KENTUCKY.

Canton—Bridge.—Reports state that Trigg county contemplates building a \$25,000 bridge over the Cumberland river. Address County Clerk.

Lexington.—Incorporated: Flood & Co., with \$100,000 capital, by J. H. Flood, W. R. Flood of Lexington and J. Y. Oldham of Los Angeles, Cal.

Louisville—Bridge.—Louis & Fort Gay Bridge Co. has been organized with Col. Jay H. Northup, president, to build a wagon and foot bridge across Big Sandy river connecting Louisville with Fort Gay, W. Va., and bids for the construction are being invited.*

Louisville—Condensed Beverages.—Ineeda Cofpho Co., Inc., previously reported incorporated with \$100,000 capital, is having plans prepared by D. J. Ely for the erection of building 50x125 feet.*

Louisville—Iron Works and Foundry.—Reports state that H. E. Thompson is constructing galvanized-iron works plant, 55x170 feet, and foundry, 180x55 feet.

Louisville—Real Estate.—McDowell Land Improvement Co. has increased capital from \$5,000 to \$20,000.

Louisville—Construction Company.—Incorporated: Kenyon Construction Co., with \$10,000 capital, by R. B. Taylor, H. K. Carr, J. H. Parrish and associates.

Owensboro—Laundry.—Mödel Laundry Co. has been incorporated by Ernest Norris, C. C. Feigel and Sol Rotheild with \$1500 capital to operate laundry. J. B. Lambert is engineer in charge.

Paducah—Wagon Factory.—Dr. J. H. Hickman, J. W. McCulloch, F. T. Gunther, C. W. Bransford and R. S. Hughes, all of Owensboro, Ky., contemplate organizing \$200,000 company to establish wagon works.

Winchester—Water-works.—Charles F. Attersall, Edward S. Jouett and associates have incorporated the Winchester Water-Works Co. with \$10,000 capital.

LOUISIANA.

Borgnemouth (P. O. New Orleans)—Canning Factory.—Reports state that the Joulilian Packing Co. of Biloxi, Miss., contemplates the erection of canning factory.

Borgnemouth (P. O. New Orleans)—Lime and Cement Works.—Louisiana Lime & Cement Co. is being organized, with \$400,000 capital, to take over the plant of the Louisiana Lime Co. and erect Portland-cement plant which will have a daily capacity of 1000 barrels. Wm. J. Kelly is president; Wm. A. Lombard, vice-president; Matthew Warriner, secretary, and Robert A. Warriner, treasurer.

Covington—Electrical-supply Manufacturing.—Southern Electrical Manufacturing Co., Ltd., has been incorporated with \$200,000 capital to manufacture the "Simplex" arc light. Dr. E. Y. Ames of Covington is president; Arnold Heller of New York, N. Y., vice-president, and E. J. Frederick of Covington, secretary-treasurer.

Lake Providence—Electric-light Plant and Water-works.—City has let contract to A. B. Sanders of Shreveport, La., at \$37,000 for the construction of proposed water-works and electric-light plant after plans by Capt. Arthur Hider of Greenville, Miss.

Lake Charles—Electric-light Plant.—City

contemplates erecting electric-light plant. Address The Mayor.

New Orleans—Coal Docks, etc.—Mississippi River Coaling Co., reported incorporated last month with \$100,000 capital, is expending \$100,000 in improvements to property at the mouth of the Lake Borgne canal, including the erection of coal tipples with a capacity of 200 tons an hour.

New Orleans—Carbonic-acid Gas.—Crescent City Carbonate Co. has incorporated, with \$100,000 capital, to manufacture and sell carbonic-acid gas, etc. W. W. Lake is president; W. G. Coyle, vice-president; W. S. Bickford, secretary, and A. N. Bickford, treasurer.

New Orleans—Cotton Cultivation, etc.—North Louisiana Cotton Planting Co. has been incorporated with \$300,000 capital by W. W. Girault and others to develop cotton lands in Louisiana, etc.

Whitecastle—Water-works Extension.—Town is arranging for the extension of water-works system. Address Town Clerk.

MARYLAND.

Mountain Lake Park.—It is reported that F. F. Martin of Fairmont, W. Va., has purchased, will improve and operate the local electric-light plant.

Rockville—Wrapper Factory.—Rockville Manufacturing Co. has been organized with Washington Hicks, president; Joseph Mendels, vice-president, and Philip D. Laird, secretary-treasurer, for the establishment of plant to manufacture wrappers (previously reported).

MISSISSIPPI.

Aberdeen—Brick Works.—George C. Paine, B. C. Welch, Robert Kaye and associates will organize \$70,000 company to establish plant for the manufacture of sand and lime brick which will be equipped for a daily capacity of 25,000 bricks.

Fayette—Lumber Company.—W. P. Adams Lumber Co. has been incorporated, with \$10,000 capital, by W. F. Adams, E. J. Bomer, Dunbar Holder and others.

Gulfport—Saw-mills.—Edward Hines Lumber Co. of Chicago, Ill., reported last month as having purchased 160,000 acres of land in Harrison and Pearl River counties, is preparing for the erection of saw-mills with an aggregate capacity of about 1,500,000 feet per day.

Hebron—Mercantile.—Riley Mercantile Co. has been incorporated with \$25,000 capital.

Jackson—Drug Company.—E. B. Mims, J. A. Hart, R. Griffith, L. D. Woodruff and associates have incorporated the Jackson Drug Co. with \$50,000 capital.

Lexington.—Incorporated: Barbour, Herbert & Rogers Co., with \$25,000 capital, by T. L. Barbour, W. H. Herbert and J. H. Rogers.

Poplarville—Mercantile.—Chartered: B. E. Wilkinson Mercantile Co., with \$30,000 capital.

Tutwiler—Cottonseed-oil Mill.—Tutwiler Cotton-Oil Mill is being organized with \$25,000 capital.

Vicksburg—Electric-light Plant.—W. O. Crumpler has applied for franchise to construct an electric-light plant.

Vicksburg—Real Estate.—Black Bayou Land & Improvement Co. has been incorporated with \$10,000 capital by R. G. Smith, H. Fletcher, F. M. Baumgardner, William McLean, C. Linstrom and Cary Jones.

Weathersby—Lumber Company.—Gulf States Lumber Co. has been incorporated, with an authorized capital of \$50,000, by Allen Kauffman, E. S. Harmon, C. W. Robinson, R. A. Forto and associates.

MISSOURI.

Birmingham—Brick Works.—Geo. Witthoff, Philip Hardwicke and Claude Hardwicke have incorporated the Witthoff Brick Co. with \$30,000 capital.

Campbell—Cotton Gin.—Incorporated: Citizens' Gin Co., with \$6000 capital, by D. A. Brannin, G. T. Edwards and J. L. Denson.

Chilhowee—Coal-mining.—It is reported that R. Bunn, C. E. of the Chicago, Rock Island & Pacific Railroad, Eldon, Mo., is arranging for the development of coal lands near Chilhowee.

Joplin—Glove Factory.—The National Glove & Mitten Co. of Kokomo, Ind., is reported as contemplating the establishment of a branch factory in Joplin.

Joplin—Machine Works.—A. Worth Machine Co. has been incorporated, with \$2500 capital, by Cynthia J. Worth, A. Worth and A. J. Malone.

Kansas City—Grain and Coal Company.—Thomas T. Gaugh, W. Mars Gaugh and Emery B. Bruce have incorporated the Gaugh Grain & Coal Co. with \$17,000 capital.

Prosperity—Hardware Company.—T. F. Betts, C. E. Weeks and Annie F. Betts have

Incorporated the Weeks-Betts Hardware Co., with \$16,000 capital.

Puxico—Handle Factory.—Incorporated: Fulkerson Bros. Handle Co., by J. M. Fulkerson, J. Fulkerson, L. H. Lucas and others; capital \$10,000.

St. Joseph—Ice and Cold-storage Plant.—It is reported that a \$500,000 company will be organized to erect and operate ice and cold-storage plant; ice plant to have a capacity of 100 tons and the cold storage, ice storage and dry storage to occupy building covering 131,952 square feet. Brown Transfer & Storage Co. is interested.

St. Louis—Mining.—Incorporated: Black Cat Mining Co., with \$100,000 capital, by Clara B. Gillett, J. Frank Gillett and W. G. Lyman.

St. Louis—Stove Works.—Joseph Landay, F. Edward Sudholt and Ben F. Heyl have incorporated the Landay Steel Range Co., with \$20,000 capital, to manufacture and deal in stoves, ranges, etc.

St. Louis—Paper-manufacturing.—Brooks Paper Co. has incorporated, with \$25,000 capital, to manufacture and deal in paper; incorporators, Robert W. Brooks, P. K. Brooks and E. E. Riley.

St. Louis—Chemical Works.—Corliss Chemical Co. has been incorporated with \$50,000 capital by Albert K. Meier, L. V. Curtis, William H. Curtis and others.

St. Louis—Publishing.—Incorporated: Eldson Publishing Co., with \$10,000 capital, by W. R. Eldson, Charles F. Hatfield and W. A. Eldson.

St. Louis—Vehicle Works.—St. Louis Coffin Co., F. D. Gardner, president, will erect eight-story addition, which will be equipped for the manufacture of hearses, having a yearly capacity of 400.

St. Louis—Telephone Exchange.—Kinloch Telephone Co., previously reported as having increased capital, has secured site on which to erect eight-story fireproof building at a cost of \$300,000.

St. Louis—Automobile Works.—Union Automobile Manufacturing Co. has been incorporated with \$12,000 capital by Benjamin B. Hullbert, George H. Martin and George B. Louderback to manufacture and deal in automobiles.

NORTH CAROLINA.

Charlotte—Grocery Company.—W. I. Henderson Grocery Co. has been organized, with \$25,000 capital. W. I. Henderson is president, and W. J. Thomas, secretary-treasurer.

Charlotte—Textile-machinery Works.—The D. A. Tompkins Co. has purchased the equipments, patents and entire assets of the Fairmount Machine Works of Philadelphia, Pa., maker of machinery for textile mills, and will remove the plant to Charlotte. An additional shop building 75x300 feet in size (now in course of construction) will accommodate much of the Philadelphia equipment. This acquisition and the betterments contemplated in connection with it will enable the Tompkins Company to actively develop its plans for designing and manufacturing spindles, looms, dyeing apparatus and machinery of all kinds for textile mills, as well as for cottonseed-oil mills and other manufacturing plants which it has been supplying.

Greensboro—Telephone Exchange.—Bell Telephone Co. is having plans prepared by J. Henry Tyler, Atlanta, Ga., for the erection of three-story building, 25x70 feet, to be equipped as telephone exchange.

High Point—Glass Works.—It is rumored that the Pittsburgh (Pa.) Plate Glass Co. will erect glass factory, and Dr. W. A. Lash of Greensboro, N. C., will have charge of the construction of buildings.

Kernersville—Improvement Company.—Kernersville Improvement Co. has been incorporated with an authorized capital of \$50,000 by C. C. Sapp and others.

Littleton—Knitting Mill.—The Littleton Hosiery Mills contemplates enlarging its plant.

Morganton—Sewerage System.—City contemplates constructing sewerage system and surveys will be made at once. Address The Mayor.

Mt. Airy—Furniture Factory.—Reports state that the Mt. Airy Furniture Co. is building an addition to its plant.

Raleigh—Timber Land.—R. D. Godwin, W. C. Douglas and others have incorporated the R. D. Godwin Lumber Co., with \$500,000 capital, for the development of timber land.

Wilmington—Fertilizer Factory.—Reports state that W. B. Van Dyck and associates have purchased site on Point Peter on which to erect fertilizer factory.

Wilmington—Publishing.—Reports state that a stock company is being organized for the publication of daily paper, and John H. Core is interested.

Wilmington—Woodworking Plant, Machine Shop, etc.—Incorporated: Crevelin-Van Dyck Company has been incorporated by J. L. Crevelin, W. V. B. Van Dyck of Wilmington, Francis V. Van Dyck of New Brunswick, N. Y., and Joseph P. Crevelin of Auburn, N. C., with an authorized capital of \$25,000, to take over and operate the business of Crevelin & Van Dyck.

SOUTH CAROLINA.

Charleston—Lumber Company.—E. H. Burton, M. C. Burton and E. W. Durant, Jr., have incorporated the E. P. Burton Lumber Co. with \$400,000 capital.

Charleston—Lumber Company.—Incorporated: Halsey Lumber Co., with \$32,500 capital.

Columbia—Gas-plant Improvements.—It is rumored that the Columbia Gaslight Co. contemplates improving its plant. R. A. Apperson of Philadelphia, Pa., is president.

Filbert—Knitting Mill.—C. F. James and J. B. Neil are organizing a company to build knitting mill. Capital stock will be \$10,000.

Greenville—Brick Works.—Greenville Brick Co. has been organized, with W. H. Neal, president, to manufacture brick. Site has been purchased and plant will be erected at once.

Laurens—Shirt and Overall Factory.—Crescent Company will be incorporated with \$10,000 capital to manufacture shirts, overalls, etc., and will at once begin the erection of two-story brick building. T. K. Hudgens, 309 East Main street, is secretary-treasurer. Mr. Hudgens and associates were reported last month as to establish this plant.

Newberry—Water-power-Electric Plant.—Parr Shoals Power Co. has been incorporated, with \$50,000 capital, and privilege of increasing to \$1,000,000, by M. G. Houseal, C. H. Cannon, W. K. Sligh of Newberry and C. L. Scott of Greenville, S. C., for the development of water-power at Parr's Shoals and the erection of electric plant to transmit the power.

Spartanburg—Furniture Factory.—Lion Furniture Co. contemplates increasing capital from \$25,000 to \$50,000.

TENNESSEE.

Carthage—Saw-mill and Hoop Factory.—It is reported that T. J. Fisher, M. J. Malone, J. W. Highers and others will erect saw-mill and hoop factory at a cost of \$5000.

Chattanooga—Medicine Company.—Reports state that the Black Haw Medicine Co. contemplates removing plant from Dayton, Tenn., to Chattanooga. J. T. Dean is president of the company; W. B. Allen, vice-president, and Frank McDonald, secretary and general manager.

Chattanooga—Electrical Supplies.—Terrell-Hedges Electrical Co. has been incorporated with \$10,000 capital to manufacture and deal in electrical supplies; incorporators, N. T. Terrell, M. M. Hedges, W. B. Swaney, Thos. B. Cooke and Battle McLeister.

Chattanooga—Wagon Works.—Chattanooga Wagon Co. has purchased the plant of the Hickman Wagon Co., Hickman, Ky., which will be removed to Chattanooga, increasing the yearly capacity of Chattanooga plant to 20,000 wagons.

Chattanooga—Ice and Cold-storage Plant.—It is reported that the Atlanta (Ga.) Ice Co., E. Woodruff, president, has purchased the plant of the Hamilton Ice & Cold Storage Co., and a company will be organized with \$150,000 capital to operate it. As soon as site is secured a 150-ton ice plant will be erected.

Clarksville—Laundry.—C. R. Major, Thos. F. Martin, W. A. Quarles and associates have incorporated the Mercantile Laundry Co., with \$6000 capital.

Clifton—Telephone System.—Consolidated Telephone Co. has been incorporated, with \$50,000 capital.

Lenoir City—Cotton Mill.—The Holston Manufacturing Co., reported incorporated last week, etc., will build a 10,000-spindle yarn mill, not a 5000-spindle plant as at first stated. Contracts for the machinery will be placed next month. F. A. Weiss is in charge.

Linden—Telephone and Telegraph Company.—Consolidated Telephone & Telegraph Co. has been incorporated with \$50,000 capital by W. N. Sloan, J. F. Barlow, H. B. Stubblefield and associates.

Memphis—Steel Wharftboat.—Consolidated Wharftboat Co. is having plans prepared for the construction of wharftboat entirely of steel, 325 feet long and 50 feet wide, at a cost of \$40,000. A number of water-tight compartments will be built, and it will be equipped with all modern improvements.

Memphis—Elevator.—Lee Line Co. contemplates erecting storage elevator, three stories, 300x150 feet.

Memphis—Abattoir.—William LaCroix of LaCroix Stockyards contemplates organizing stock company with \$50,000 capital to erect and operate abattoir.

Nashville—Coal Mines.—Reports state that another mine will be opened at the Brier Hill collieries, increasing the daily capacity to 750 tons. The installation of new and improved mining machinery is also being considered. John D. Fletcher is general manager.

Nashville—Coal Mines and Coke Ovens.—Bon Air Coal & Iron Co. contemplates constructing additional coke ovens and opening new mines.

Nashville—Oar Factory.—It is not probable that the Chattanooga Boat Oar Co., Chattanooga, Tenn., will remove its boat-oar factory to Nashville, as recently reported.

Nashville—Transportation Company.—Nashville Transportation Co. has been organized to operate towboats, barges, aggregating 5000 tons capacity. John B. Ransom is president; John W. Love, vice-president, and Walter Keith, secretary-treasurer.

Paris—Telephone System.—It is reported that local capitalists have secured franchise for the construction of telephone system. J. S. Warren of Memphis, Tenn., can probably give information.

Shelbyville—Pencil Factory.—Reports state that F. S. Landers is erecting building, which will be equipped as pencil factory.

West—Saw-mill.—Powell Lumber & Mining Co. is arranging for the erection of band mill for the development of timber land in Cumberland county.

West Nashville—Grist Mill.—H. T. Snell is installing additional machinery for increasing the capacity of grist mill.

TEXAS.

Beaumont—Sewerage System.—City has voted affirmatively the \$30,000 bond issue previously reported for extending sewerage system. Address The Mayor.

Beaumont—Mattress Factory, etc.—R. W. Banks and associates contemplate establishing factory to manufacture mattresses, renovate carpets, etc.*

Beaumont—Oil Wells.—Beaumont Geyser Oil Co. has been incorporated, with \$1,000,000 capital, by F. W. Smith of Houston, Texas; C. W. Campbell of Waco, Texas; T. M. Richardson of Oklahoma City, O. T., to drill for oil.

Belton—Gas Plant.—Texas Gas Co., which recently secured franchise, to construct and operate gas plant, is investigating site and will at once begin the erection of building.

Brenham—Brick Works.—Brenham Pressed Brick Co. has been incorporated, with \$50,000 capital, to manufacture building brick, block and tiles; incorporators, J. H. Simon, C. G. Botts and Robert Strickert.

Center—Water-works and Street Improvements.—City has issued \$2000 of bonds for water-works and \$3000 for street improvements. Address The Mayor.

Clarksville—Telephone System.—Home Telephone Co. has been incorporated, with \$2500 capital, by John B. King, N. P. Doak and Hiram Glass.

Corsicana—Tool Works.—J. W. Sloan of Corsicana, J. A. McVeigh of Sour Lake, Texas, and J. F. Maxwell of Beaumont, Texas, have incorporated the Cleveland Tool Co., with \$25,000 capital, to manufacture tools.

Dallas—Paper Mills.—Incorporated: Art Wallpaper Mills, with \$25,000 capital, by Adolph Stein, F. M. Etheridge of Dallas, Charles Stein of Chicago, Ill., and associates.

DeKalb—Storage Company.—Incorporated: DeKalb Storage Co., with \$24,000 capital, by J. D. Bundy and A. A. Whatley of DeKalb, and Worth Duncan of Paris, Texas.

Detroit—Mercantile.—J. A. Caton, O. M. Peek, W. H. McAlister and J. S. Kerbow have incorporated the Farmers' Mercantile Co. with \$50,000 capital.

El Paso—Gas and Electric Plant.—El Paso Gas & Electric Co. has been incorporated with \$500,000 capital by G. D. Flory, Charles Bassett of El Paso, William Barrett Ridgely of Washington, D. C.; G. S. Goodman of Waukegan, Ill., and associates.

Fort Worth—Mercantile.—Incorporated: Burton-Peel Dry Goods Co., with \$200,000 capital, by W. G. Burton, A. Caddell, Paris, Texas, and W. W. Peel, St. Louis, Mo.

Galveston—Bridge.—It is reported that the Gulf, Colorado & Santa Fe Railroad contemplates replacing iron bridge across the Neches river by a large masonry center pier and a heavy steel draw at a cost of \$25,000; A. F. Robinson, assistant bridge engineer, Chicago, Ill.

Hillsboro—Ice and Cold-storage Plant.—It is rumored that Louis Haberzettle, manager

of the Home Ice Factory, contemplates making extensive improvements to plant, including the erection of another cold-storage vault 30x36 feet.

Houston—Lumber Company.—James T. Taylor, William Barnes and Fred Pettigill have incorporated the James T. Taylor Lumber Co. with \$20,000 capital.

Houston—Saw-mill Machinery.—It is reported that W. M. McIntyre of the Giddings & Lewis Manufacturing Co., Fon du Lac, Wis., is investigating site for the establishment of plant to manufacture saw-mill machinery.

Longview—Pottery.—J. P. Donaldson will rebuild pottery recently burned; structure to be 40x50 feet and be equipped for an annual capacity of 150,000 gallons.*

Lytle—Creamery.—W. H. Gray, L. P. Burns, Robert Peterson and associates have incorporated the Lytle Creamery Co., with \$3000 capital.

Nacogdoches—Water-works.—City has voted affirmatively the proposed \$50,000 bond issue for the construction of water-works. Address The Mayor.

Orange—Irrigation Plant.—Adams Bayou Canal Co., reported incorporated last week with \$30,000 capital, will own and operate irrigation canal in Orange county for cultivating rice lands, etc. Work will begin at once on the construction of about five miles of canal and a pumping plant will be installed of sufficient size to water 5000 acres of rice lands. J. A. Ochiltree is president, and Geo. W. Bancroft, secretary-treasurer.

Rusk—Saw-mill.—Phillips Bros. will rebuild saw-mill reported burned last week.*

San Antonio—Cannery.—It is reported that Edward W. Knox, representing the Bexar County Farmers' Institute, has made a proposition to the Business Men's Club for the establishment of a cannery.

Sherman—Mercantile.—Ender-Allen Company has been incorporated, with \$10,000 capital, by George D. Ender, E. C. Allen, Homer Gee and associates.

Temple—Gas Plant.—City has granted franchise to the Texas Gas Co. of Houston, Texas, to construct and operate gas plant.

Wills Point—Hardware Company.—Russell-Montague Hardware Co. has been incorporated, with \$10,000 capital, by W. E. Eastwood, E. A. Russell and C. J. Montague.

VIRGINIA.

Blackstone—Lumber Mill.—Nottoway Manufacturing Co. has incorporated, with \$10,000 capital. M. Lindsay of Amelia, Va., is president; L. Pettus, Blackstone, Va., vice-president; M. Page of Amelia, Va., secretary, and L. Tisdale of Blackstone, treasurer.

Buena Vista—Iron Mines.—Buena Vista Iron Co. has incorporated, with \$100,000 capital, to mine iron ore. John A. Grazer is president; Franklin W. Otto, vice-president; Bruce H. Campbell, secretary, and Daniel Crofford, treasurer.

Colonial Beach—Electric Light Plant.—Colonial Beach Electric & Power Co. has been incorporated, with \$25,000 capital. Warren S. P. Combs is president; F. F. Ninde, vice-president, and W. Frank Renshaw, secretary-treasurer.

Danville—Tobacco Company.—Incorporated: Pemberton & Penn., with James G. Penn, president; O. W. Dudley, vice-president; J. P. Penn, secretary, and James G. Penn, Jr., treasurer, to deal in tobacco and tobacco stems; capital \$100,000.

Emory—Laundry.—Water-works, etc.—It is reported that Emory & Henry College contemplates the establishment of water-works system, laundry and the erection of central building, at a cost of \$77,000. Dr. R. G. Waterhouse can be addressed.

Harrisonburg—Saw-mill, Stave and Heading Factory, etc.—Stiegel Lumber Corporation, previously reported incorporated with \$50,000 capital, is arranging for the development of 75,000 acres of timber land in Augusta county, and will operate saw-mill with a daily capacity of 40,000 feet of lumber. Company will establish stave mill and heading plant and also install bending machinery for the manufacture of buggy and carriage-wheel rims.

Lexington—Water-works Improvements.—City contemplates extending water-works system. Address W. G. McDowell.

Martinsville—Tobacco Factory.—Rucker & Witten Tobacco Co. is making extensive improvements to its plant, including the erection of factory building, four stories, 115x160 feet; drying room 115x160 feet, warehouse 108 x150 feet, etc.

Norfolk—Skating Rink.—Arrangements are being completed for the construction of proposed ice skating rink. R. B. Fentress is president of company.

Norfolk—Real Estate.—Palmetto Company has been incorporated with \$50,000 capital. T. H. Dick, Jr., Columbia, S. C., is president, and Thomas E. Seabrook of Norfolk is secretary-treasurer.

Richmond—Iron and Nail Works.—It is reported that Frank Jay Gould of New York city has purchased the Old Dominion Iron and Nail Works, will enlarge the plant and operate it mainly for the manufacture of mechanical supplies for the various street railways which he controls in Richmond and other cities.

Richmond—Slate Quarries.—Buckingham Slate Co. has been incorporated, with \$25,000 capital, to develop the Buckingham slate quarries. James W. Gordon is president; W. W. Haley, vice president; Howard Gordon, secretary, and Frank W. Bottom, treasurer.

Trevilians—Sulphur Mining.—An Eastern syndicate is arranging for the development of a vein of sulphur on the Dickinson farm, near Trevilians, and a Mr. Hibler of Lasley, Va., is engineer in charge.

WEST VIRGINIA.

Bluefield—Locomotive Heaters.—George C. Bailey has patented a heater for use on locomotives, and will probably establish factory for their manufacture.

Charleston—Coal and Land Company.—Incorporated: Laurel Coal & Land Co., with \$400,000 capital, by W. A. MacCorkle, J. E. Chilton, W. E. Chilton, G. O. Chilton and T. S. Clark.

Harper's Ferry—Electric Light Plant Improvements.—Harper's Ferry Electric Light & Power Co. is enlarging plant, and contemplating extending its lighting facilities to nearby towns.

Mason—Iron and Steel Works.—Kenton Iron & Steel Co. of Cincinnati, Ohio, is erecting an iron and steel plant.

Thacker—Coal and Timber Lands.—Thacker Fee Co. has been incorporated, with \$50,000 capital, by T. E. Houston of Elkhorn, W. Va.; Howard H. Houston of Chester, Pa.; Charles E. Pugh of Philadelphia, Pa.; A. J. Duell of Harrisburg, Pa., and George S. Graham of Philadelphia, Pa., to deal in coal and timber lands; principal office, Elkhorn, W. Va.

Tunnelton—Supply Company.—Stewart Frazer, Fred R. Long, Edmond L. Humphreys, James E. Kilkinson, Jay Edgar Long, all of Philadelphia, Pa., have incorporated the Milled Supply Co. with \$10,000 capital.

Virginia Station (not a postoffice).—Coal Mines.—Chartered: Pittsburg & Wabash Coal Gas Co., with \$200,000 capital, for the development of 1500 acres of coal land in Brooke county, West Virginia, and Washington county, Pennsylvania; incorporators, Theo. J. Allen, D. M. McCloskey, William C. Glendard of Charleston, Pa.; A. J. Vernon of Donora, Pa., and W. W. Luce of Monaca, Pa.

Wheeling—Gas plant Improvements.—Andrew T. Sweeney, mayor, states there is no truth in the report mentioned last week that improvements are being contemplated in the city gas plant.

INDIAN TERRITORY.

Marble—Marble Company.—Incorporated: Southern Marble Co., with \$1,400,000 capital, by E. R. Fraser, Charles F. Shamon, J. N. Hughes and H. B. Huber.

OKLAHOMA TERRITORY.

Arapaho—Oil Wells.—A stock company is being organized to drill for oil, and G. B. McFarland is interested.*

Blackwell—Oil Wells, etc.—Blackwell Oil Co., and not the Blackwell Oil & Gas Co., is the correct title of company reported incorporated last week, with \$500,000 capital, to drill for oil, etc. C. Behm is engineer in charge.*

Helena—Improvement Company.—Helena Improvement Co. has been incorporated, with \$6000 capital, by H. H. Anderson, O. A. Brewer and F. W. Edwards.

Hennessey—Telephone System.—Incorporated: Center Townsite Rural Telephone Co., with \$1000 capital, by William Beaman, Ben Thorne, B. Hemphill, R. Reynolds and others.

Hobart—Oil and Gas Wells, etc.—Farmers & Merchants' Oil, Gas & Mining Co. has been incorporated, with \$100,000 capital, by L. D. Saubine, O. K. Berke, D. L. McDaniels and associates.

Manitou—Improvement Company.—Manitou Townsite & Improvement Co. has been incorporated with \$64,000 capital by Marion W. Barnes, Frank M. Palmer and John E. Williams.

Oklahoma City—Electric Plant.—Chas. B. Luck, Chas. Risdon and Warren K. Snyder

have incorporated the Banner Electric & Manufacturing Co. with \$10,000 capital.

Oklahoma City—Oil and Gas Wells.—Incorporated: Newalla Oil, Gas & Mining Co., with \$500,000 capital, by J. W. Hill, L. Howard Lee, M. S. Lee and Edward Albright.

Ralston—Oil Wells.—Imperial Oil Co. has been incorporated with \$100,000 capital by P. J. Monk, H. E. Thompson, E. A. Bullock, R. F. Schofield and associates.

BURNED.

Burnet, Texas.—G. W. Bishop's cotton gin; loss \$3000.

Dwight, Ala.—Vinegar Bend Lumber Co.'s planing and saw mills; loss \$75,000.

El Campo, Texas.—Koehl, Russell & Farentholt's hay barn.

Grayton, Ala.—T. S. Gray's cotton gin; loss \$3000.

Hedlin, Ala.—Atkins & Owens' warehouse; loss \$8000.

Highlandtown, Baltimore, Md.—Paint factory of the H. B. Davis Co., Pratt and 8th streets; loss about \$70,000.

Huntington, W. Va.—Hotel Central; loss \$50,000.

Ingleside, Miss.—Morehead Bros.' cotton gin; loss \$4000.

Laella, La.—John W. Cockerham, Jr.'s, cotton gin; loss \$300.

Marlow, Ala.—J. W. Grove's saw-mill.

McGregor, Texas.—Brown & Connally's cotton gin; loss \$5000.

McKinney, Texas.—Corn-sheller and engine-room of Hall & Webb; loss \$5000.

Memphis, Tenn.—St. Louis & San Francisco Railroad Co.'s shops; loss \$40,000. Address R. H. Briggs, master mechanic, Memphis.

Oakland, Miss.—Jail building. Address Valobusha County Commissioners.

Piggott, Ark.—J. M. Myers' planing mill; loss \$5000.

Rosedale, Miss.—Charles Scott's cotton gin, loss \$5000; Normal School (colored), loss \$3000.

Stevenson, Ala.—Coffey Bros.' cotton gin.

Palarm (P. O. Mayflower), Ark.—J. A. Wallace's cotton gin.

Self Creek, Miss.—W. T. Norris' cotton gin.

Seymour, Texas.—Planters' Hotel.

Taboro, N. C.—C. W. Jeffreyson's cotton gin.

Taboro, N. C.—Municipal electric-light plant; loss \$2000.* Address The Mayor.

Terrell, Texas.—Texas Midland Railroad Co.'s shops; loss \$50,000. L. W. Wells is chief engineer.

Truitt, Texas.—J. L. Golden's cotton gin.

Vicksburg, Miss.—Mann Building & Manufacturing Co.'s plant; loss \$12,500.

Vicksburg, Miss.—D. R. Middleton's cotton gin at Walters damaged by boiler explosion.

Yazoo City, Miss.—Eagle Bend Ginnery, owned by the Gilruth Company.

BUILDING NOTES.

* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

Adel, Ga.—School Building.—City has voted affirmatively the proposed \$10,000 bond issue for the erection of school building. Address The Mayor.

Alexandria, Va.—Store and Dwelling.—Dr. C. G. Lennou has had plans prepared by W. Leon Clark, 340 Commerce street, for the erection of two-story store and dwelling; structure to be of frame with brick foundation, tin roof, etc., and cost \$5000.

Annapolis, Md.—Hospital.—Bids will be received until December 14 at the Navy Department, Washington, D. C., for the erection of hospital at the United States Naval Academy, Annapolis, Md. Blank forms of proposal and specifications will be furnished, and plans may be seen on application to the United States Naval Academy, Annapolis, or at the office of Ernest Flagg, 35 Wall street, New York, N. Y. Set of drawings may be obtained by depositing \$15 with the architect, Paul Morton, secretary.

Bennettsville, S. C.—Hotel and Store Buildings.—A. J. Matheson is having plans prepared by J. M. McMichael of Charlotte, N. C., for a \$25,000 hotel and five store buildings.

Benwood, W. Va.—Church.—Reorganized Church of Jesus Christ contemplates erecting \$6000 edifice. O. J. Terry is chairman building committee.

Benwood, W. Va.—Church.—Methodist Episcopal congregation has had plans pre-

pared by F. J. Schlotter, Evansville, Ind., for the erection of proposed edifice.

Brady, Texas.—School Building.—City has issued \$13,000 of bonds for the erection of school building. Address The Mayor.

Bryan, Texas.—Church.—Bryan Presbyterian Church has had plans prepared for the erection of edifice, 55x60 feet. Address The Pastor.

Chapel Hill, N. C.—Dwelling.—Trustees of the University of North Carolina have adopted plans by Frank P. Milburn of Columbia, S. C., for proposed residence for the president to cost \$8500.

Charlotte, N. C.—Office Building.—Southern Express Co. has engaged Frank P. Milburn, Columbia, S. C., to prepare plans and specifications for proposed building.

Charlotte, N. C.—Hotel.—W. S. Alexander, P. M. Brown, T. W. Hawkins and associates have organized the Highlands Hotel Co., with an authorized capital of \$200,000, for the erection of five-story hotel, 90x183 feet, to cost about \$150,000.

Charlotte, N. C.—Hotel.—Central Hotel Co. has been incorporated, with \$200,000 capital, by W. H. Twitty, George H. Brockenborough and W. B. Ryder. It has acquired the Central Hotel, which will be enlarged and improved.

Chattanooga, Tenn.—Church.—Congregation of Park Place Presbyterian Church has purchased site at 523 McCallie avenue on which to erect edifice. Address The Pastor.

Clarksburg, Ark.—Hotel.—It is reported that E. T. McConnell and associates have organized company, with \$17,500 capital, to erect hotel.

Columbia, S. C.—Dwellings.—Jordan Company has let the contract for five residences on Rose Hill.

Dallas, Texas.—Dwelling.—Mrs. Bama Adams will remodel the Fowkes home on Gaston avenue at a cost of \$10,000.

Dallas, Texas.—Car Barn.—Dallas Consolidated Electric Street Railway Co. has permit to erect car barn at a cost of \$9000.

Eatonton, Ga.—Courthouse.—Bids will be received until December 14 for the erection of courthouse for Putnam county previously reported. J. W. Golucke & Co. of Atlanta, Ga., prepared the plans.

Eatonton, Ga.—Bank Building.—Butt & Morris of Atlanta, Ga., are architects in charge of proposed two-story brick building, 22x80 feet, reported last week to be erected by the Bank of Eatonton.

Edwardsville, Ala.—Jail.—Pauly Jail Building Co. of St. Louis, Mo., has contract at \$7452 for the erection of Cleburne county's proposed jail building.

Elba, Ala.—Bank Building.—New bank organized by J. M. Garrett of Sanford, Ala., and associates will erect bank building.

Elizabeth City, N. C.—Stable.—W. N. Gregory has secured site on which to erect livery stable.

Elm Grove, W. Va.—Industrial School.—Bishop P. J. Donahue, Wheeling, W. Va., has commissioned Thomas C. Kennedy, architect, 331 North Charles street, Baltimore, Md., to prepare plans and specifications for buildings for the Elm Grove Industrial School. Main building to be five stories high with two four-story wings, 100x200 feet; annex building containing chapel and workrooms, two stories high, 40x230 feet; brick with stone or terra-cotta trimmings; concrete foundation; steel beams and girders; cast-iron columns; electric wiring and fixtures; sanitary plumbing; steam-heating system; cost to be about \$200,000.

Galveston, Texas.—Business Building.—Chrisman & Nesbit have contract to erect proposed three-story press-brick building, of iron and steel construction, 100x110 feet, for the Briggs-Weaver Machinery Co., to be used as warehouse and office building.

Gadsden, Ala.—City Hall.—Frederick Moeser & Co., Birmingham, Ala., have contract at \$16,874 for the erection of City Hall, previously reported.

Georgetown, D. C.—School Building.—Plans and specifications will be received until December 8 for the erection of proposed new Cathedral School for Boys at a cost of \$75,000. Geo. E. Truesdell is chairman building committee.

Georgetown, D. C.—Dwellings.—Patrick T. Moran of Washington, D. C., will erect 11 two-story brick residences on site recently purchased at a cost of \$22,000.

Greenville, S. C.—Depot.—J. F. Grandy & Son have contract to erect proposed \$30,000 passenger depot for the Southern Railway.

Hancock, Md.—Club Building.—Woodmont Rod and Gun Club will rebuild club building at Woodmont recently burned. James M. Green of Washington, D. C., is secretary-treasurer.

Helena, O. T.—School Building.—Plans and specifications are being invited for the erection of \$40,000 school building previously reported. E. S. Willite is secretary board of trustees.

Hot Springs, Ark.—Church.—Baptist congregation is erecting \$75,000 edifice. Address The Pastor.

Hot Springs, Ark.—Hotel.—Dr. A. U. Williams is erecting four-story hotel.

Houma, La.—Bank Building.—Bids are being received by Southron R. Duval, 606 Common street, New Orleans, La., for one-story bank building 25x60 feet for the People's Bank, Houma; structure to be of stucco, stone and marble, concrete floor, tin roof, vitrified tiling, gas and electric fixtures, and cost \$6000.

Humboldt, Tenn.—School Building.—F. M. Garthwait has contract at \$12,774 for the erection of school building previously reported.

Jackson, Miss.—Lodge Building.—Chartered: Pythian Castle Hall, with \$30,000 capital, for the erection of \$15,000 lodge building previously reported.

Jellico, Tenn.—Warehouse.—L. Warters has completed plans for one-story warehouse, of brick, 116x225 feet, for the H. T. Hackney Company.

Johnston, S. C.—Store Building.—Dr. F. L. Parker has purchased site on which to erect store building.

Johnston, S. C.—Store Buildings.—Dr. John W. Mobley of Milledgeville, Ga., will erect two store buildings.

La Follette, Tenn.—Store Building.—Winston, Blair & Powers have had plans prepared by L. Warters for the erection of proposed store building.

Lexington, Ky.—Dwelling.—Alex. G. Morgan has purchased site and is having plans prepared for the erection of residence to cost \$10,000.

Lexington, Ky.—Dwelling.—Alfred Combs is having plans prepared for the erection of \$10,000 residence on site recently purchased.

Little Rock, Ark.—Dwelling.—F. W. Gibb, architect, will erect two-story brick veneer residence.

Louisville, Ky.—Office Building and Warehouse.—Belknap Hardware Co. has purchased site on which to erect office building and warehouse; structure to be six stories, of brick and stone.

Louisville, Ky.—Business Building.—S. Weber & Son will rebuild structure recently burned, and plans are being prepared.

Lynchburg, Va.—Science Hall.—J. P. Pettyjohn & Co. have contract to erect science hall at College Park for the Randolph-Macon Woman's College, reported last week; structure to be 38x70 feet, and cost \$15,000. Frye & Chesterman prepared the plans.

Manning, S. C.—Presbyterian congregation will erect \$8000 edifice; J. M. Holladay, pastor.*

Marion, S. C.—Store Buildings.—Dr. J. C. Mace has purchased site on which to erect three store buildings.

Montgomery, Ala.—Hospital.—City has let contract to S. L. Smith at \$10,879 for the erection of proposed emergency hospital.

Mineral Wells, Texas.—Bathhouse.—C. W. Forbes of Fort Worth, Texas, has contract to erect proposed bathhouse for Dr. W. M. Thomas after plans by W. G. E. Roloff of Fort Worth, Texas; structure to be of brick, 50x80 feet, and cost \$12,000.

Miami, Fla.—Office Building.—Dade County Title, Insurance & Trust Co. contemplates erecting office building.

Morganfield, Ky.—Opera-house.—Morganfield Amusement Co. has been incorporated with \$8000 capital by J. M. Crowe, T. R. Young and J. K. Waller to build an opera-house.

Nashville, Tenn.—Warehouse.—H. G. Lipscomb & Co. have purchased site on Front street on which to erect warehouse.

New Orleans, La.—Office Building.—D. A. Barnes has contract to erect proposed office building for the St. Louis & San Francisco Railroad; structure to be three stories, 48x100 feet, steel frame and brick walls, and cost \$25,000.

New Orleans, La.—Warehouse.—W. O. & C. G. Burton have contract to erect brick and steel warehouse 21x167 feet, at a cost of \$51,000, for the Albert Mackie Grocery Co., previously reported. Stone Bros. prepared the plans.

New Orleans, La.—Courthouse.—Plans and specifications will shortly be asked by the courthouse commission for the erection of \$800,000 courthouse; Bernard McClosker, president commission.

Oklahoma City, O. T.—Business Building.—Security Building Co. has been incorporated, and will erect three-story business building, 25x100 feet.

Oklahoma City, O. T.—Building Company. J. M. Owen, G. B. Stone, T. J. Hendrickson, T. M. Richardson and associates have incorporated the Security Building Co., with \$32,000 capital.

Pensacola, Fla.—Hotel.—It is reported that C. L. Stone, G. P. A. of the Louisville & Nashville Railroad Co., Louisville, Ky., and W. S. Isaacs of Chicago, Ill., are investigating site for the erection of 300-room hotel.

Pine Bluff, Ark.—Store Building.—M. A. Austin is having plans prepared for the erection of three-story store building, 50x54 feet, of hydraulic-pressed stone, at a cost of \$12,000.

Pine Bluff, Ark.—Business Building.—Southern Mercantile Co. is erecting two-story brick building, 70x120 feet, to cost \$15,000.

Raleigh, N. C.—Elks' Home.—Charles W. Barrett has prepared plans for proposed home and club building for E. P. O. E.; structure to be 45x110 feet, cost \$20,000, and be equipped with swimming pool, bowling alleys, gymnasium, billiard and pool rooms, etc. Contract for construction has not been let.

Rayne, Ia.—Store Building.—C. E. Barilleaux will erect store building on site recently purchased.

San Marcos, Texas.—Store Building.—A. B. Rogers has purchased site on which to erect building.

Sardis, Miss.—Courthouse.—Board of Supervisors of Panola county will consider plans and specifications January 2 for rebuilding courthouse, previously reported burned; R. P. Eckles, D. C.

Savannah, Ga.—Apartment-house.—E. I. Okmarra has permit to erect two-story apartment-house.

Savannah, Ga.—College Building.—John R. Eason has contract at \$23,000 for brick building previously reported to be erected by the Benedictine College; structure to be two stories, 60x100 feet, equipped with steam heat, electric lights, etc. Father Bernard is president.

South McAlester, I. T.—Church.—First Baptist Church contemplates erecting brick and stone edifice at a cost of \$10,000.

Staunton, Va.—School.—Collins & Son are preparing plans for building 150x135 feet, to cost \$25,000, for the Staunton Military Academy, to replace structure reported burned last week. Wm. H. Kable is principal.

St. Louis, Mo.—Bank Building.—Herbert C. Chivers has completed plans for proposed building for People's United States Bank of St. Louis at University Heights; structure to be 100x207 feet and cost \$500,000.

St. Louis, Mo.—Bank Building.—Mauran Russell & Garden, 721 Olive street, have completed plans for proposed \$100,000 bank building for the Broadway Savings & Trust Co.; to be of brick with terra-cotta trimmings, have steam heat, etc.

Tate Springs, Tenn.—Hotel Improvements. Plans have been prepared by Baumann Bros., Knoxville, Tenn., for proposed addition to the Tate Springs Hotel. Col. Thomas Tomlinson can be addressed.

Texarkana, Texas.—Store and Office Building.—W. J. Murphy, 313 East Broad street, has had plans prepared by Burdall & Co., 423 State Line avenue, for the erection of three-story brick store and office building to cost \$12,000.

Tifton, Ga.—Dwelling.—W. W. Timmons will rebuild next spring residence recently burned at a loss of \$750.

Tullahoma, Tenn.—Church.—Frank Wright, Jr., Smith's Grove, Ky., has completed plans and specifications for brick edifice reported last week to be erected by the First Baptist Church, and bids for the construction are invited.*

Tulsa, I. T.—Business Building.—Lee Mathews is preparing plans for proposed business-house for C. P. Alexander, to be two stories, of brick, stone trimmings, and cost \$12,000.

Uniontown, Ky.—Bank Building.—Farmers' Bank is having plans prepared by Harris & Shopbell, Evansville, Ind., for the erection of proposed two-story press-brick building, 21x50 feet.

Vicksburg, Miss.—Hotel.—There is no truth in the report mentioned last week that G. B. Duy would erect hotel.

Washington, D. C.—Public Building.—Ambrose B. Stanard of New York, N. Y., has contract at \$1,296,000 for building the base and superstructure for the Department of Agriculture Building previously reported.

Washington, D. C.—Church.—G. W. Barkman has contract to erect proposed edifice for St. Paul's M. E. Church after plans by Spelden & Spelden; structure to be of brick with slate roof.

Washington, D. C.—Apartment-house.—Er-

skine M. Sunderland will erect three-story apartment-house on site recently purchased.

Washington, Ga.—School Building.—Frank P. Milburn, Columbia, S. C., will prepare plans for remodeling school building at a cost of \$10,000 (previously reported).

Wheeling, W. Va.—Postoffice, Courthouse and Custom-house.—James Knox Taylor, supervising architect, Treasury Department, Washington, D. C., will open bids January 3, 1905, for the construction of the United States postoffice, courthouse and custom-house building, Wheeling, in accordance with drawings and specifications, copies of which may be had at office of supervising architect, or at the office of postmaster, Wheeling, W. Va., at the discretion of the supervising architect.

Wilmington, N. C.—Opera-house.—It is reported that a stock company will erect three-story opera-house on property owned by S. A. Schloss, and plans are now being prepared.

Wilmington, N. C.—Store and Office Building.—R. I. Shrier will erect three-story press-brick building, 36x100 feet, with stone trimmings, on site recently purchased.

Winchester, Ky.—Dwelling.—Frank P. Milburn, Columbia, S. C., has prepared plans for John G. White's proposed residence.

RAILROAD CONSTRUCTION.

Railways.

Ansted, W. Va.—A dispatch from Newport News says that J. G. Trent and a party of engineers for the Deepwater and Tidewater railways have arrived here to make a survey for the proposed Tidewater Railway. William N. Page of Ansted is chief engineer.

Atlanta, Ga.—Clyde L. Brooks, 508 Gould Building, is reported to have prepared a charter for the Athens, Floral Park & Newnan Air Line Railway to build a line from Athens via Monroe, Conyers, Floral Park and Fayetteville to Newnan, Ga. Ransom Rogers, 625 Empire Building, will, it is said, make the survey, and J. S. Betts, railroad contractor, Ashburn, Ga., may build the line.

Austin, Texas.—R. H. Baker, general manager of the Trinity & Brazos Valley Railway, is reported as saying that it is proposed to extend the road to Dallas or Fort Worth or to Beaumont or Houston, perhaps in both directions. The question of extension may be settled within 10 days.

Batesville, Ark.—The Batesville & Jacksonport Railway Co. has, it is reported, been granted an extension of three years to complete 10 per cent. of its proposed line.

Benton, Mo.—The Thebes Bridge & Western Railway Co. has been incorporated, with \$350,000 capital, to build a line from the Mississippi river, in Scott county, to the Carter river, in Stoddard county, 35 miles. The incorporators are S. A. McCoy, V. O. Boone and others.

Bristol, Tenn.—The South & Western Railway is reported to be working about 200 men on its proposed extension from Clinchport, Va., towards Coeburn, Va. J. B. Newton of Bristol is general manager.

Cedartown, Ga.—The Seaboard Air Line's extension from Atlanta to Birmingham is now reported complete, the connecting rails having been laid at Odenville, about 30 miles east of Birmingham. L. B. Parsons, superintendent, came through to Birmingham in his car over the line.

Chicago, Ill.—Concerning the press report that the company would build the long talked of extension in Texas to the Gulf, Mr. B. L. Winchell, president of the Rock Island system, writes the Manufacturers' Record as follows: "We are in no way planning or negotiating for the construction of a line from Dallas to Galveston."

Chicago, Ill.—Mr. A. S. Baldwin, engineer of construction (Illinois Central Railroad), writes the Manufacturers' Record that the change of line between Fort Jefferson and Wickliffe, Ky., is about four and one-half miles long, and extends southward from the northerly limits of Wickliffe. This requires about 500,000 cubic yards of grading; contract let to W. J. Oliver of Knoxville, Tenn. E. I. Rogers, Wickliffe, is assistant engineer in charge of the work. The diversion is for a double-track railroad.

Conway, S. C.—Mr. R. B. Scarborough, one of the incorporators of the Conway Coast & Western Railway, is quoted as saying that a contract has been given to the Carnegie Steel Co. to furnish rails for the line, and Mr. D. A. Spivey is reported as saying that the preliminary survey has been made and rights of way secured to Marion, S. C. The charter is from Sumter, S. C., to Southport, N. C., and when the Marion branch is completed the main-line work will be pushed.

Corpus Christi, Texas.—The St. Louis,

Brownsville & Mexico Railway has applied for approval of \$1,063,125 bonds on its completed line from Robstown to Brownsville, and a dispatch from Austin says that among the papers filed is a copy of the contract with Johnston Bros. providing for extension to Galveston and Houston.

Corpus Christi, Texas.—The St. Louis, Brownsville & Mexico Railway will, it is reported, immediately put 200 teams to work at grading the projected extension from Robstown to Sinton. John W. Griswold, superintendent of construction of the company, is quoted as saying that tracklaying is completed on the Hidalgo branch to a point within three miles of Fordyce, the terminus, and will be finished this week.

Cumberland, Md.—The Cumberland & Mt. Savage Railway Co. has been incorporated to build an electric railway from Cumberland to Mt. Savage, from Corriganville to Ellerslie and from Barrellville to the Pennsylvania State line, a distance of about 12 miles. The directors are George Clinton Uhl of Mt. Savage, Dr. William Oliver McLane of Frostburg, John Henry Holzshu, James A. McHenry and Charles G. Holzshu. Mr. McHenry and Mr. J. H. Holzshu are officials of the Cumberland Electric Railway.

Cumberland, Md.—A report from Washington, Pa., says that J. Q. Barlow of Cumberland, chief engineer of the Western Maryland Railroad; Virgil C. Bogue, consulting engineer of the Wabash Railroad; W. N. Arthur of Pittsburgh, J. W. Patterson, Jr., president of the Wabash Terminal Co., and J. H. McClevert of New York have been inspecting the route for the proposed Greene County Railway, which the Wabash is to build from Pittsburgh to the West Virginia State line, there to connect with the proposed Buchanan & Northern Railroad, which will unite with the West Virginia Central and Western Maryland. Mr. Bogue is quoted as saying that the road will be built next year.

Galveston, Texas.—Mr. C. F. W. Felt, chief engineer Gulf, Colorado & Santa Fe Railway, Galveston, Texas, writes the Manufacturers' Record confirming the press report that the contract for building the Jasper & Eastern Railway has been awarded to the Lantry-Sharp Contracting Co., Gumbel Building, Kansas City, Mo. He also says that the approximate length of line arranged for is 50 miles northeast from Kirbyville, Texas, towards Alexandria, La. The Kansas City Southern will be crossed south of De Ridder, La.; engineer in charge, M. F. Temple, chief engineer, Kirbyville, Texas. The following officers have been elected by the new road: E. P. Ripley, Chicago, president; W. C. Nixon, Galveston, first vice-president; M. F. Temple, Kirbyville, second vice-president; A. B. Beckham, Kirbyville, secretary and treasurer; A. C. Torbet, Galveston, assistant secretary and treasurer.

Greenville, Miss.—The governor has authorized the incorporation of the Helm & Northwestern Railroad and the Minter City, Southern & Western Railroad, charters for which were lately filed by J. B. Kemp and others of Greenville.

Greenville, S. C.—Construction is reported begun on the proposed Greenville & Knoxville Railway (or Saluda Valley Railroad) by the contractor, Capt. Ollie Caudle.

Hagerstown, Md.—The Hagerstown Electric Railway Co. has completed its extension to Myersville, and the first car has been run through from Hagerstown to Frederick.

Hattiesburg, Miss.—President F. L. Peck of the Mississippi Central Railroad has, it is reported, ordered a survey for an extension of eight miles from Silver creek to Monticello, Miss.

Hoschton, Ga.—The Atlanta & Carolina Railway Co., which proposes to build an electric line from Atlanta to Greenville, S. C., going through Lithonia, Lawrenceville, Hoschton, Jefferson, Commerce and Carnesville, Ga., and Anderson, S. C., has organized by electing directors as follows: John R. Hosch, Dr. W. P. Delapierre, John E. Hill, L. F. Sells, Henry Brazelton and H. T. Edgerton, all of Hoschton; J. B. Thompson of Gainesville, and James Sawyer of Snellville. The following officers were elected: John R. Hosch, president; J. B. Thompson, first vice-president; W. P. Delapierre, second vice-president; M. T. Edgerton, secretary; Joseph A. McCord of Atlanta, treasurer. C. J. Haden of Atlanta was elected chief counsel. The capital stock was increased from \$50,000 to \$2,000,000.

Houston, Mo.—The Houston, Licking & Salem Electric Railway Co. has been organized to build an electric railway connecting the three towns. The directors are James A. Craven, Robert Lamar, W. J. McGeehe, Clark Dooley, W. E. Barton, J. R. Blankenship and A. J. Johnson.

Houston, Texas.—The Houston-Galveston Interurban Railway Co. has amended its

charter, increasing the capital from \$250,000 to \$1,000,000. W. B. Slosson, W. E. Scott, H. C. Fuller and others are interested.

Jackson, Miss.—Estimates for construction of the proposed Jackson & Vicksburg Electric Railway have been submitted to the promoters by Engineer Paige. The line will be 46 miles long.

Kansas City, Mo.—The International Construction Co., which is building the Kansas City, Mexico & Orient Railway, has filed an amendment to its charter to increase its capital from \$7,000,000 to \$10,000,000.

Kansas City, Mo.—Official information is reported that financial arrangements have been completed to build the proposed Kansas City, Oklahoma & Houston Railway, for which a survey has been made between South McAlester, I. T., and Honey Grove, Texas. P. W. Bean of Kansas City and others are interested. The Burlington system is said to be concerned.

Lexington, Ky.—George C. Webb has, it is reported, been appointed receiver for the Bluegrass Consolidated Traction Co., which proposes to build lines from Lexington to Versailles and other points.

Louisville, Ky.—The Louisville & Nashville Railroad will, it is reported, utilize the \$2,000,000 bond issue authorized by the directors of the South & North division in Alabama for double-tracking, building branches and other improvements. R. Montfort is chief engineer.

Meherrin, Va.—The Lunenburg Lumber Co. has, it is reported, made ready eight miles of its railroad for the track, and two miles of rail are already laid.

Mobile, Ala.—Officers of the Mobile, Jackson & Kansas City Railroad are reported as saying that the line will be completed all the way from Mobile to Middleton, Tenn., and in operation by March 1 next.

Mobile, Ala.—It is reported that the Mobile, Jackson & Kansas City Railroad proposes to build an extension to Jackson, Tenn. A. N. Bullitt is chief engineer at Mobile.

Monroe, La.—Mr. A. A. Gunby, attorney-at-law, who is one of the incorporators of the company, writes from Monroe to the Manufacturers' Record that the Monroe & Lake Providence Railway Co. has employed J. D. Garrison to make the survey and location for the proposed line and W. H. Hampton to secure rights of way. The line will be 45 miles long. No bids for construction or equipment will be solicited until the survey is complete.

Montgomery, Ala.—The W. B. Wright Company is building a spur track about a mile long on Tenth avenue, connecting at Wright street with the Louisville & Nashville Railroad.

New Orleans, La.—Engineers for the Southern Pacific have, it is reported, surveyed three lines between Port Allen and Lafayette, T. Fay, vice-president and general manager, Houston, Texas, may be able to give information.

New Orleans, La.—Col. J. McNaught of New York is reported to be working on a plan to build a railroad in the northern part of Louisiana.

Opelousas, La.—Judge T. H. Lewis, president of the proposed Opelousas, Gulf & Northeastern Railway, is reported as saying that those interested hope to get to work on the line very shortly, starting at Opelousas to connect with either the Texas Pacific or Frisco system. The other officers are: E. L. Veazey, vice-president; George T. Edwards, secretary, and J. J. Thompson, treasurer.

Orange, Texas.—The Sanders-Trotter Tram Co. will, it is reported, put in a 12-mile line for the Latcher & Moore Lumber Co.

Palestine, Texas.—Mr. Leroy Rice, second vice-president and general manager of the International & Great Northern Railway, writes the Manufacturers' Record that plans for improvements at Houston are not completed, and no time has been set to begin work.

Pioneer, Tenn.—The Schlosser Leather Co. of Pioneer will, it is reported, build a six-mile railroad connecting here with the Knoxville & Ohio Railroad.

Raleigh, N. C.—The New Hope Valley Railway is reported to have graded 12 miles of its proposed 20-mile line.

Richmond, Va.—The Chesapeake & Ohio Railway Co. will, it is reported, soon let a contract for building a double track line through the city of Lynchburg, Va.; also that an auxiliary yard will be constructed near Sandy Hook. F. I. Cabell is engineer of construction at Richmond. A late report says that the double-track contract has been let to Mathews & Curtis of Clifton Forge, Va.

Roanoke, Va.—An officer of the Norfolk & Western Railroad writes the Manufacturers'

Record denying the report that plans are being prepared for a double-track line around Lynchburg, Va., to avoid grades.

Savannah, Ga.—The Southern States Phosphate & Fertilizer Co. will, it is reported, build a double-track tramway more than half a mile long.

Silver Creek, Miss.—Bowles & Hemingway, railroad contractors, have, it is reported, begun grading on the Gulf & Ship Island extension from Silver Creek to Columbia, 32 miles, having completed their work on the Illinois Central branch from Brookhaven to Monticello.

Smithfield, Va.—Gordon Vincent and others have, it is reported, organized a railroad company to build a line from Smithfield to connect at Wakefield with the Norfolk & Western Railway.

Statesboro, Ga.—The Savannah, Statesboro & Northern Railway Co. has been granted a charter to build its proposed line from Statesboro to Louisville, Thomson, Washington and Athens, Ga., about 160 miles. Cecil Gabbett and others are interested.

St. Louis, Mo.—An official of the St. Louis & San Francisco Railroad informs the Manufacturers' Record that he has no information concerning the reported plan to build a line from Ardmore, I. T., to Waurika, O. T.

Tampa, Fla.—Mr. C. A. Denman, manager of the Peninsular Telephone Co., referring to the report that he and others were interested regarding the building of an electric railway to connect Tampa and Plant City, writes the Manufacturers' Record that as yet there is no definite plan for the line.

Topeka, Kan.—The Santa Fe system has, it is reported, awarded the contract to Robert Kincaid to extend its line from Owasso, I. T., to Tulsa, I. T., 12 miles, work to begin by December 1. W. B. Storey is chief engineer.

Tulsa, I. T.—Mr. Clifton George, president of the First National Bank of Tulsa and one of the incorporators of the proposed Kansas City, Tulsa & Southwestern Railroad, writes the Manufacturers' Record confirming its report of the amendment to the charter and the plans to build the line as published in the issue of November 17.

Vinita, I. T.—F. A. McClellan of St. Louis, Mo., has, it is reported, made a proposition to the town of Vinita to build a railroad from Vinita to Coffeyville or Bartlesville, and the town, it is said, has raised \$50,000 to aid the line.

Washington, D. C.—The Washington, Arlington & Falls Church Railway Co. has completed and put in operation its extension of about 10 miles to Fairfax Court House, Va.

Washington, D. C.—The Northern Alabama Railway will, it is reported, build a branch two miles long from the main line between Sheffield and Parish, Ala., for the Townley Mining Co. W. H. Wells, engineer of construction Southern Railway, may be able to give information.

Waynesboro, Ga.—Notice is given that application will be made for a charter for the Waynesboro, Sylvania & Savannah River Railroad Co. to build a line about 60 miles long from Waynesboro via Sylvania and Clio to the Savannah river. The petitioners are Wm. A. Wilkins, Sr., Robert C. Neely, P. L. Corker, Edwin Fulcher, Frank M. Cates, Charles W. Skinner, George O. Warnock, Floyd L. Seales, William A. Wilkins, Jr., William H. Davis, Hugh B. McMaster, William M. Fulcher, William L. McElmurray, N. P. Thomas of Waynesboro, Ga.; L. H. Hilton, J. J. B. Morel, Isaac Silver, P. A. Mock of Sylvania, Ga.; S. B. Lewis of Bascom, Ga., and J. T. Walker of Boyd, Ga.

Street Railways.

Fort Smith, Ark.—The Fort Smith Light & Traction Co. will, it is reported, build an extension to the Arkansas river opposite Van Buren, Ark., and will also make other extensions. H. M. Byllesby of the Byllesby Engineering Co. of Chicago; Chief Engineer O. E. Ostroff and H. W. Nowlin of Wisconsin are reported to be interested.

Macon, Ga.—The Macon Railway & Light Co. directors have ordered that the proposed extension through Pleasant Hill be rushed to completion.

Nashville, Tenn.—A bill in the city council granting the Nashville Railway & Light Co. the privilege of building an extension on Market street, from Chestnut street to the city limits, has been recommended for passage.

New Orleans, La.—The comptroller has sold the franchise for an electric railroad in Algiers, La., to Leigh Carroll and Lynn M. Dinkins, on the basis of one-half of 1 per cent. of the annual gross receipts.

San Antonio, Texas.—The San Antonio Traction Co. has, it is reported, ordered 500 tons of steel rails for improvements.

MACHINERY, PROPOSALS AND SUPPLIES WANTED.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.

Air Compressors.—See "Carpet Renovating."

Bank Fixtures.—Charles H. Page, Jr., Austin, Texas, wants catalogues and prices on bank fixtures.

Belting.—Phillips Bros., Rusk, Texas, want prices on belting. (See "Saw-mill.")

Boiler.—Paris Mountain Granite Co., Inc., Greenville, S. C., wants prices on 30 to 40-horse-power boiler. (See "Quarrying Equipment.")

Boiler.—D. K. Elliott, Langdon, D. C., is in the market for one 500 or 600-horse-power boiler. (See "Engine and Boiler.")

Boiler.—G. J. Turman, Sulligent, Ala., wants prices on 40-horse-power boiler. (See "Engine and Boiler.")

Boilers.—See "Engines and Boilers."

Bottles.—See "Bottling-works Equipment."

Bottling-works Equipment.—Ineeda Cofpho Co., Inc., Louisville, Ky., is in the market for 30-inch buhr mill for grinding substances into paste form, 25 gallon steam-jacket copper kettle, one Crown cork machine, eight ounce spits in green or amber, same style bottle as white rock, 25 or 50 gross.

Brick.—R. Calvert Courtney, P. O. Box 196, Norfolk, Va., is in the market for a large quantity of shale or vitrified brick for sidewalk-paving purposes.

Bridge Construction.—Louisa & Fort Gay Bridge Co., Louisa, Ky., wants bids on the construction of wagon and foot bridge across Big Sandy river, connecting Louisa with Fort Gay, W. Va.

Bridge Construction.—H. M. Wallis, mayor, Houma, La., will open bids January 1, 1905, for steel bridge across the Bayou Terrebonne in Houma, in strict accordance with plans, specifications, etc., which may be seen at mayor's office or will be furnished on application. Certified check of 10 per cent. of amount of bid payable to the mayor must accompany each bid. Usual rights reserved.

Buhr Mill.—Ineeda Cofpho Co., Inc., Louisville, Ky., is in the market for 30-inch buhr mill for grinding substances into paste form.

Building Equipment and Supplies.—S. W. Wise, Cumberland, Md., wants estimates on galvanized cornice, ornamental copper-work, iron guards, ornamental wood grills, lobby tiling, plain red-oak wainscot paneling for lobby, steel ceiling for lobby.

Building Equipment and Supplies.—Charles H. Page, Jr., Austin, Texas, wants catalogues and prices on marble, tiling, terracotta, electrical fixtures, etc.

Building Equipment and Supplies.—G. W. Milligan, Moultrie, Ga., wants to purchase marble front for one-story bank building.

Building Material.—Charles Meehan, Sr., president Cotton Plant Lumber Co., Cotton Plant, Ark., wants prices delivered on finished building material.

Carpet Renovating.—R. W. Banks, Box 339, Beaumont, Texas, is in the market for complete outfit for renovating carpets. (See "Mattress-factory Equipment.")

Church Furniture.—Rev. J. M. Holladay, Manning, S. C., wants prices on pews and pulpit furniture.

Concrete Mixer.—Arkansas Concrete Stone Co., Benton, Ark., is in the market for a concrete mixer.

Contractors' Equipment.—See "Steam Shovel."

Cotton-gin Equipment.—G. J. Turman, Sulligent, Ala., wants prices on 80-saw (Van Winkle) gin, self-packing press and suction wagon scales.

Cotton mill Machinery.—See "Woolen-mill Machinery."

Crushing Machinery.—See "Quarrying Equipment."

Dredging.—F. S. Shields, secretary Sewerage and Water Board, 602 Carondelet street, New Orleans, La., will open bids January 23,

1905, for the excavation of approximately 55,000 cubic yards of floating dredge. Specifications and general plans may be obtained at the office of the Sewerage and Water Board, Drainage Department, Room 20, City Hall. Usual rights reserved.

Electric Motor.—See "Woolen-mill Machinery."

Electrical Equipment.—See "Building Equipment and Supplies."

Electrical Machinery.—F. H. Lummus Sons Company, Columbus, Ga., wants prices on a dynamo of sufficient capacity to handle 250 incandescent lights and also generate 25 additional horse-power.

Electric-light Plant Equipment.—B. W. Townsend, Red Springs, N. C., wants machinery and equipment for electric-light plant to light town of 1000 inhabitants.

Elevators.—C. H. Page, Jr., Austin, Texas, wants catalogues and prices on elevators.

Elevators.—Arkansas Concrete Stone Co., Benton, Ark., is in the market for elevators.

Engine.—Arkansas Concrete Stone Co., Benton, Ark., wants a 10-horse-power gasoline engine.

Engine.—See "Woolen-mill Machinery."

Engine.—D. A. Layton, Marion, S. C., is in the market for a 75 or 80-horse-power engine, automatic or Corliss; second-hand preferred.

Engine.—See "Quarrying Equipment."

Engine.—Dublin Iron Works, Dublin, Ga., is in the market for a six and eight-horse-power kerosene-oil engine; second-hand.

Engine.—Willingham Sash & Door Co., Macon, Ga., is in the market for a 250-horse-power engine.

Engine and Boiler.—G. J. Turman, Sulligent, Ala., wants prices on 30-horse-power engine and 40-horse-power boiler.

Engine and Boiler.—D. K. Elliott, Langdon, D. C., is in the market for one 20-horse-power gasoline engine and one 500 or 600-horse-power boiler.

Engines and Boilers.—Blackwell Oil Co., Blackwell, O. T., will be in the market for engines and boilers.

Foundries.—See "Wheelbarrow Manufacturers."

Foundry Equipment.—See "Iron-working Machinery."

Grinding Mill.—See "Bottling-works Equipment."

Heating Apparatus.—Italeigh Wright, pastor First Baptist Church, Tullahoma, Tenn., wants prices on hot-air furnaces.

Heating Apparatus.—Rev. J. M. Holladay, Manning, S. C., wants prices on heating apparatus.

Irrigating Plant.—See "Pumping Plant."

Iron-working Machinery.—Southern Iron Equipment Co., Atlanta, Ga., wants wheel press of 250-ton capacity suitable for 74-inch driving wheels, new or second-hand.

Kettles.—See "Bottling-works Equipment."

Lumber.—Board of Commissioners of port of New Orleans, Hugh McCloskey, president, 601-602 Ilerbia Bank Building, New Orleans, La., will open bids December 20 for furnishing, treating and delivering such piling and lumber as may be required for a period of one year from date of contract; deposit, \$2000; payments monthly in full for materials received; bond, \$10,000. Specifications, proposal forms, etc., on file at office of J. F. Coleman, engineer, No. 920 Ilerbia Bank Building, by whom full sets will be furnished on deposit of \$10 each. Usual rights reserved.

Machine Tools.—See "Iron-working Machinery."

Machine Tools.—August Petres & Son, Rayne, La., want addresses of manufacturers of power disc sharpeners.

Marble Front.—See "Building Equipment and Supplies."

Mattress-factory Equipment.—R. W. Banks, Box 339, Beaumont, Texas, is in the market for complete equipment for mattress factory. (See "Carpet Renovating.")

Milling Machinery.—See "Bottling-works Equipment."

Milling Plants.—See "Mining Equipment."

Mining Equipment.—See "Screening Machinery."

Mining Equipment.—Benedictine Mining & Milling Co., Consolidated, 1201 Pennsylvania avenue N. W., Washington, D. C., is in the market for six large mining and milling plants aggregating a capacity of 400 tons per day.

Paving.—R. S. Williams, City Treasurer, Montgomery, Ala., will receive proposals in duplicate until December 19 for paving the sidewalks of certain streets in accordance with specifications in the city engineer's office. Work to be divided into four lots

and a certified check for \$250 is required for each lot. Usual rights reserved.

Piping.—See "Water-works Equipment."

Piping.—Blackwell Oil Co., Blackwell, O. T., is in the market for about 3000 feet best grade steel pipe ranging in size from 10 to 5 inches, such as is used in oil and gas wells.

Pumping Plant.—Adams Bayou Canal Co., Orange, Texas, is receiving bids on complete pumping plant of sufficient size to water 5000 acres of rice lands, maximum height the water will have to be raised and delivered into the canal being 16 feet.

Quarrying Equipment.—Paris Mountain Granite Co., Inc., Greenville, S. C., wants prices on machinery and equipment for quarrying, including crushing plant; 30 to 40-horse-power boiler, traction engine, wagons, 6000 to 8000 pounds capacity.

Railway Equipment.—See "Sewerage System."

Railway Equipment.—Jos. E. Bowen, Atlantic Office Building, Norfolk, Va., is in the market for one mile of 56-pound relays with joints weighted in, delivered at Marion, Va.

Railway Equipment.—D. A. Layton, Marion, S. C., is in the market for two miles of scrap iron three or four inches wide, bored and countersunk so that heads of spikes will be level with iron, and spikes for same three-eighths of an inch or thicker; new or second-hand.

Roofing.—J. P. Donaldson, Longview, Texas, wants prices on roofing suitable for flat roof on brick building 40x50 feet.

Saw-mill.—H. Jeff Davis, Waynesboro, Ga., is in the market for a hand-saw saw-mill and desires catalogues.

Saw-mill.—G. J. Turman, Sulligent, Ala., wants prices on No. 13 saw-mill.

Saw-mill.—Phillips Bros., Rusk, Texas, want prices on No. 2 saw-mill. (See "Belt-ing.")

Saw-mill Equipment.—Southern Manufacturing Co., Box 15, Savannah, Ga., wants to communicate with manufacturers of wood-larking machines.

Scales.—See "Cotton-gin Equipment."

Screening Machinery.—H. H. Meyer, Mexico, Mo., is in the market for a hand screen to operate by hand-power.

Sewerage System.—Commissioners of Sewer District No. 6 will open bids December 15 at the office of the People's Savings Bank & Trust Co., Pine Bluff, Ark., for the construction of about 24,000 feet of sewer pipe of the following dimensions: 4500 feet 10-inch pipe, 12,000 feet 8-inch pipe, 7500 feet 6-inch pipe, 35 manholes, 24 flush tanks completed ready for operation. Plans and specifications may be seen at office of J. B. White, engineer, at office of People's Savings Bank & Trust Co., Pine Bluff. Certified check for \$300 payable to the commissioners must accompany each bid. Usual rights reserved.

Sewerage System.—Sewerage and Water Board, F. S. Shields, secretary, 602 Carondelet street, New Orleans, La., will open bids January 31, 1905, for the construction of 65 miles of sewers and appurtenances and the furnishing and laying of 15 miles of cast-iron water mains and appurtenances and 4000 feet of railroad track. Sewers to range in size from 8 to 30 inches and in depth from 5 to 18 feet, and will include 700 manholes and 275 flush tanks; water pipe will be mainly from 16 to 48 inches in diameter, aggregating about 13,000 tons; small quantities of 4 to 12-inch water pipe to also be included. Plans, specifications and blank forms of proposals may be obtained after December 20 at the office of Sewerage and Water Board. Certified check for \$1500 must accompany each bid. Usual rights reserved.

Sharpeners.—See "Machine Tools."

Steam Shovel.—D. A. Layton, Marion, S. C., is in the market for a steam shovel to work on brickyard; second-hand preferred.

Steel Ceiling.—See "Building Equipment and Supplies."

Telephone and Telegraph System.—A. Lipper, city secretary, Houston, Texas, will open bids December 12 for the installation of a police, burglar and telegraph system, to be furnished complete with 30 call and telephone boxes or stations. Bidders are required to furnish their own plans and specifications and exhibit necessary instruments. For further information apply to C. R. George, city electrician, Houston, Texas. Usual rights reserved.

Telephone Equipment and Supplies.—La Grange Telephone Co., Milam Bros., managers, La Grange, Ga., wants prices on telephone equipment, such as wire, cable, insulators, brackets, pins, arms, switchboards, distributing boards, telephones, etc.

Telephone Supplies.—Kenyon Construction Co., 405 Urban Building, Louisville, Ky., wants prices on telephone supplies.

Thread (Wool) Machinery.—See "Woolen-mill Machinery."

Tiling.—See "Building Equipment and Supplies."

Tilling.—See "Building Equipment and Supplies."

Wagons.—See "Quarrying Equipment."

Water-works Equipment.—R. S. Williams, city treasurer, Montgomery, Ala., will open bids December 5 for furnishing gate valves, gate boxes and fire hydrants in accordance with specifications on file in office of city engineer. Certified check for \$1000 must accompany each bid. Usual rights reserved.

Water-works Equipment.—Water-Works Committee, Savannah, Ga., will open bids December 14 at the office of the Savannah Water-Works for furnishing f. o. b. Savannah, Ga., 1500 feet 12-inch standard cast-iron pipe, 1000 feet eight-inch standard cast-iron pipe, 4000 feet six-inch standard cast-iron pipe, four 8x8x6-inch tees, five 12x12x6-inch tees, one 6x6x8-inch tee, one 12x12x12-inch tee, two 12-inch elbows. State time of delivery. Usual rights reserved; I. U. Kinsey, superintendent.

Well-drilling.—G. B. McFarland, Arapaho, O. T., wants to communicate with parties relative to boring wells for oil.

Wheelbarrow Manufacturers.—J. W. Chapman, Lawrenceville, Ga., wants to correspond with manufacturers of metal wheelbarrow trays and wheels.

Woolen-mill Machinery.—Nicolas Espinosa, Calle de Freire 190, Concepcion, Chili, wants information and prices on complete plant for making wool thread; plant to include three machines for arranging the wool from which it will emerge without twist, one machine with 200 to 300 spindles from which the wool will issue in the form of properly twisted (spun) yarn; also wants six to eight-horse-power motor to consume lightwood as fuel. Correspondence in Spanish is preferred.

Woodworking Machinery.—Willingham Sash & Door Co., Macon, Ga., is in the market for machinery for making sash, doors and blinds.

MEXICO.

Boiler-compound Factory.—The Kerr Manufacturing Co., Robert J. Kerr, president, city of Mexico, will build a branch plant at Juarez, Mexico, for manufacturing its water-purifying compound.

Bottling Plant.—It is reported that Gen. Lauro Carrillo and Carlos Rivas of the City of Mexico will establish plant for bottling mineral waters.

Concentrating Plant.—The Amparo Mining Co. of Etzatlan, Jalisco, contemplates building a concentrating and cyaniding plant.

Copper-Silver Mines.—Petrillo Velazquez of Autlan, Jalisco, has filed claims to copper-silver mines which he proposes developing.

Gold and Silver Mines.—Antonio Rochin of Navidad, Jalisco, has filed claims to gold and silver lands, which he will develop.

Gold and Silver Mining.—The Benedictine Mining & Milling Co., Consolidated, of Washington, D. C., has recently consolidated 41 gold and silver mines in Sonora, Sinaloa and Chihuahua, Mexico, and in Arizona, and will shortly be in the market for six large mining and milling plants aggregating a capacity of 400 tons per day. Hon. John Goode is president; Albert E. Yarnall, secretary; Capt. Chas. B. Tanner, treasurer; R. L. Hogue, engineer-in-chief; general offices of company at 1201 Pennsylvania avenue N. W., Washington, D. C.

Gold-Silver Veins.—Manuel Cuellar of Talpa, Jalisco, has filed mining claims to gold-silver veins, intending to mine same.

Gold-Silver Veins.—Alberto Beck of Mascota, Jalisco, has filed claims to silver-gold veins which he proposes developing.

Mining Developments.—Messrs. Mark G. Hibbs and D. B. Neagley, both of Pittsburgh, Pa., and L. E. McKain of Allegheny, Pa., have incorporated the Pittsburgh-Oaxaca Mining Co., with capital stock of \$50,000, to operate in the State of Oaxaca.

Mineral Lands.—Francisco Pena y Perez of Mascota, Jalisco, has filed claims to mineral lands which he proposes developing.

Mining Developments.—The El Continente Mining Co. has been organized at Chihuahua, Chi., with a nominal capital of \$30,000 (silver), to develop mining properties, a number of working mines having been purchased. W. K. Ryan is president; Thomas Dale, treasurer, and Jose Gandara, secretary.

Picture-frame Factory, etc.—H. W. MeVickar, First Calle Guerrero, City of Mexico, and associates contemplate establishing a plant for the manufacture of picture frames,

religious statues, buttons, medallions, etc. A company capitalized at \$150,000 will probably be formed and take over some established plants.

Smelting Plant.—Charles C. Codman of Durango, Dur., is making investigations preparatory to the erection of the smelting plant for which he received franchise recently.

Telephone System.—The Richardson Construction Co. has been organized, with capital stock of \$500,000, to construct telephone systems, etc., in Mexico. Davis Richardson, L. R. Richardson and associates, all of Los Angeles, Cal., are the incorporators. They are also operating copper mines in Mexico.

Theater.—Plans and specifications for the proposed National Theater have been completed by John Boarr, architect, City of Mexico. The government will erect this structure at a cost of \$3,000,000. White stone, marble, steel and glass will be the principal materials used.

Water-works and Sewerage System.—A movement is being promoted for the construction of a complete modern water-works plant and sewerage system for the city of Mazatlan, Jalisco. Francisco C. Alcala, Emilio Philipp, William Haas, Victor Patron and others are interested. Some time ago engineers made surveys for a system of this character and estimated the cost at \$1,800,000.

INDUSTRIAL NEWS OF INTEREST

1000-Horse-Power Ball Engines.

The New York & Pennsylvania Co., John-sonburg, Pa., has recently placed an order with the Ball Engine Co., Erie, Pa., for two 1000-horse-power vertical Corliss cross-compound engines direct connected to generator.

Contract for Concrete Girders.

A contract that is of interest has been awarded at Louisville, Ky., by J. W. Struck & Bro. It calls for the substitution of concrete girders for steel in a bridge of 32 feet span, with carrying capacity of 300 pounds per square foot. Fred Erhart is the architect. The contract was awarded to the National Roofing & Supply Co. of Louisville.

Mississippi Timber and Mill.

Lumber manufacturers likely to be interested in an opportunity for purchasing a cypress mill and timber land in Mississippi are invited to write Thos. W. Gill, 1207 North Spring avenue, St. Louis, Mo. Mr. Gill offers for sale a complete modern plant in that State. It is a band mill. There are from 15,000,000 to 20,000,000 feet of timber available. Send for full details.

This Lubricant Never Disappoints.

Albany Grease never disappoints. Messrs. Adam Cook's Sons, 313 West street, New York city, sole makers, recently received a letter from W. W. Bennett, superintendent of agencies Pope Motor Car Co., Toledo factory, which states: "We have used considerable Albany Grease at this factory and it has proven very satisfactory; in fact, we cannot recommend it too highly."

A. W. Conradson & Co.

American manufacturers interested in the introduction of their products into Cuba are advised that A. W. Conradson of 104 O'Reilly street, Havana, Cuba, has formed the firm of Messrs. A. W. Conradson & Co. to continue the representation of manufacturers. Messrs. A. W. Conradson & Co. are located at 110 Havana street, Havana, where all communications should be addressed.

Allis-Chalmers in New England.

The New England offices of the Allis-Chalmers Company in Boston, now in the Board of Trade Building, and the offices of its electrical department, the Bullock Electric Manufacturing Co., in the Journal Building, will be consolidated on December 1 and removed to the State Mutual Building, 50 Congress street. George H. Berg will be the manager in charge of the consolidated offices.

Ordered Beech Flooring.

The Arcade Cotton Mills of Rock Hill, S. C., has awarded contract for a large quantity of beech flooring, beechwood having been selected after examination and comparison with the qualities of maple flooring which was at first contemplated. It is interesting to note that this contract was given to the Nashville Hardwood Flooring Co. of Nashville, Tenn., which makes a specialty of this kind of stock.

Gold Medal to Phoenix Engine.

The Phoenix Iron Works Co., Meadville, Pa., has received notice from St. Louis that the International Philippine jury of the exposition, in its capacity of associate of the

Railways.

Steam Railroad.—A report from Los Angeles, Cal., says that capitalists there have organized the Richardson Construction Co. to build a railway and telephone line from some point on the Gulf of California to a point either in the State of Sonora or in the State of Chihuahua, Mexico. The incorporators are Davis Richardson, L. R. Richardson, B. W. Wiley, Oscar Lawler, Carroll Allen, Henry S. Van Dyke and J. W. A. Off. It is stated that the Richardsons operate the La Bufa copper mines and the Trinidad silver mines in the Sahuaripa district in the eastern part of Sonora.

Steam Railroad.—The National Railroad of Mexico will, it is reported, spend \$100,000 to improve its yards in Monterey. R. T. MacDonald is chief engineer at City of Mexico.

Steam Railroad.—It is reported that a railroad will be built in the State of Mexico to a distance of 250 kilometers. Among those interested are Juan Ochoa Ramos, Teleforo Garcia and Juan Garcia; also W. H. Salisbury, D. O. Arnold, J. H. Wrenn, J. B. Hollins, J. Stone and Sidney Witherbee of Kansas City. The road will start at Toluca in two divisions—one via Tenango, Tenancingo and near Zaulpam, close to the State line of Morelos; the other from Toluca through the Sultepec and Temascaltepec mining districts west of Morelos.

board of the exposition, under the presidency of the Secretary of War, Hon. William H. Taft, has awarded the company a gold medal for the compound engine exhibited in the power plant of the Philippine government board.

Mickle-Milnor Engineering Co.

Robert T. Mickle, M. E., announces that the Mickle-Milnor Engineering Co. has succeeded to his business as representative of H. R. Heinicke, Inc., designer and builder of radial hollow-brick chimneys; Herron & Bury Manufacturing Co., manufacturer of air compressors, single and duplex types, steam, electrical and belt driven, and Monarch engine stops. Offices in the Drexel Building, Philadelphia, Pa.

Equipping a Big Flour Mill.

Millwrights are now at work installing a 150-barrel flour mill and 1200-barrel blending plant for the Tri-States Milling Co. at Nashville, Tenn. The machinery in this building will be a complete line of Monarchs, manufactured by Sprout, Waldron & Co. of Muncy, Pa., who are equipping not only the mill, but also the power plant. The Tri-States Milling Co. claims that when this mill is complete it will be one of the finest in the State of Tennessee.

Coal, Iron and Timber Interests.

The steady development of the coal, iron and timber interests of the South, as well as that of other sections of the country, attracts the attention of the most experienced operators and dealers. In this connection it is interesting to note that Messrs. Howard G. Carter & Co. of Detroit, Mich., offices in the Majestic Building, have organized for the purpose of handling coal, iron and timber interests, and they announce that they expect to give considerable attention to the South.

Gold Medal to Cameron Pumps.

It has been announced that the exhibit of the A. S. Cameron Steam Pump Works at St. Louis has been awarded the gold medal. This decision will be commended by all good judges of modern pumps. The company had quite a display at the exposition, and a number of its pumps were placed in actual service, forming a working exhibit and practically demonstrating their use and superiority. The A. S. Cameron Steam Pump Works has its main establishment in New York city, East 23d street.

Buckeye Engine Co.'s Award.

Those who are concerned in the development of the modern steam engine will be interested in the announcement that the Buckeye Engine Co. of Salem, Ohio, has received the highest award in its class, gold medal, at the Louisiana Purchase Exposition in St. Louis. This company's engines are noted for their economy, regulation and durability, and these, together with many other points of excellence, were so clearly indicated in the exposition exhibit that the jury of awards made the decision as referred to.

Mineral and Timber Territory.

Those who are seeking to locate in a territory where mineral and timber resources are present in ample quantities should investi-

gate Habersham and Rabun counties, Georgia. The recent construction of a railway through this territory affords opportunities for farming and manufacturing and the prompt marketing of products. An especially good opportunity is open for a furniture factory. For information regarding the section mentioned write the Tallulah Falls Railway. W. S. Erwin, general manager, Cornelia, Ga.

Sale of Cotton Factory.

In accordance with the orders of court, another offering of the De Kalb Cotton Mills of Camden, S. C., will be made on December 21. This plant includes 400 acres of land, mill buildings, operatives' houses, spindles, looms and other mechanical equipment for a complete cotton-manufacturing establishment. No bid of less than \$150,000 will be accepted. The public sale will be held at Camden. Parties desirous of securing information before the date of sale can address Daniel B. Gilliland, standing master, Charleston, S. C.

Gold Medal to Shay Locomotive.

All users of railway equipment will be interested in the announcement that the Shay locomotive has been awarded the gold medal at the Louisiana Purchase Exposition in St. Louis on account of its superiority over the other makes of its type that were on exhibit. This locomotive is manufactured by the Lima Locomotive & Machine Co. of Lima, Ohio, maker of Shay patent and direct locomotives and various other types of engines and cars for industrial purposes. The company is proud of the decision reached by the jury of awards.

Award for Picks and Hammers.

Dealers in and users of picks and hammers will hear with considerable satisfaction that John C. Higgins of 165 W. Kinzie street, Chicago, has received the highest award of merit and medal at the St. Louis Exposition for the picks and hammers he manufactures. Mr. Higgins' exhibit attracted attention, and his product, now in good demand, will doubtless be called for in an increasing ratio. Buyers of picks and hammers will find it worth their while to write for prices on Higgins' mill picks and other articles before purchasing elsewhere.

McMichael & Wildman Change Name.

Users of knitting-mill machinery will be interested to be informed that the McMichael & Wildman Manufacturing Co. of Norristown, Pa., has changed its name to the Wildman Manufacturing Co. There will be no change in the company other than this. It will continue to build the automatic circular rib knitting machinery for which it has made a reputation among experienced and discerning knit-goods manufacturers. New men in the knit-goods manufacturing field are invited to investigate the Wildman Manufacturing Co. equipments before awarding their contracts.

Youthful Inventors.

A dispatch from Boston says that two 15-year-old boys of that city have established a wireless-telegraphic connection between their homes, half a mile apart. This recalls the fact that 30 days after the appearance of the first published accounts of Bell's invention of the telephone two New York boys had built and were successfully operating an experimental telephone system of their own. These two boys have since achieved distinction in the electrical field, and have for many years been allied in business. They are Prof. Frank B. Crocker of Columbia University and Dr. Schuyler Skants Wheeler, both of the Crocker-Wheeler Company, Ampere, N. J.

Highest Award to Harmon S. Palmer.

When one thinks of the industry that has been established during the past several years for the manufacture of hollow concrete building blocks the mind reverts to Harmon S. Palmer, the inventor of improved machinery for producing the blocks. The Harmon S. Palmer Hollow Concrete Building Block Co. had a complete exhibit at St. Louis, and it is interesting to know that the jury of awards has given the company the highest prize in its class, the gold medal. The Palmer machines are now generally used throughout the United States, and new plants are constantly being equipped with the devices. The company's offices are at 150 Binney street, Washington, D. C.

Chattanooga Roofing & Foundry Co.

The Chattanooga (Tenn.) Roofing & Foundry Co. reports a very busy and satisfactory year, especially in its building-line departments. During the year the company added a large brick structure to accommodate the increase in wrought-iron work, such as fire-escapes, stairways, balconies, awning frames,

rods, anchors, etc. This company's factory now covers two blocks, having a frontage of about 1000 feet, every inch of which is occupied in producing the over 300 articles and styles of cast, wrought and sheet iron materials. It takes pride in the fact that among its regular customers are the largest and best dealers and contractors in the South. New catalogues are now ready for distribution.

An 80-Barrel Mill.

The Beeson-Sells Manufacturing Co. of Walkertown, N. C., will soon start its 80-barrel new mill, which is nearing completion. This mill consists of four double stands of Monarch roller mills, two Monarch style B sieve bolters, No. 4 Monarch centrifugal reel, Monarch purifiers, dust collectors, scourers, separators, etc. This order was secured through L. L. Houseknecht, Southern representative of Sprout, Waldron & Co. of Muncy, Pa., who build the Monarch mills.

L. Bick Manufacturing & Supply Co.

Railway, mine and mill supplies form a comprehensive class of manufactures and products required in the conduct of industrial enterprises. In purchasing such materials it is the quest of the experienced buyer to ascertain where the goods can be secured at the lowest possible prices, and there are many firms competing for this business. The L. Bick Manufacturing & Supply Co., 619 Burlington Building, St. Louis, Mo., is marketing railway, mine and mill supplies. This company is prepared to submit prices on small or large lots. Mr. Bick's experience in this branch of the supply trade has been a long and varied one, and he is thoroughly acquainted with the latest improved devices. Write him for information.

Generators for Paper Mill.

The Lee Paper Co. of Vicksburg, Mich., has just ordered a 200-kilowatt Northern generator for the equipment of its new mill. This is the most recent in a long series of sales of Northern apparatus to paper millers, the most prominent installation being the plant of the Consolidated Water Power & Paper Co. of Grand Rapids, Wis., in which are operated a quantity of Northern motors of all sizes, as well as two 300-kilowatt direct-current generators. The Consolidated plant contains, among other motors, two large single-voltage variable speed motors operating from the mill power circuit and giving speed variations from 30 to 500 R. P. M., corresponding with machine speeds of 50 to 500 feet per minute. The Northern Electrical Manufacturing Co. of Madison, Wis., builds the electrical machinery referred to.

For Stern and Side Wheel Boats.

Many stern and side wheel boats are used in commercial and industrial activity throughout the South. It is therefore timely to call attention to the Gillett balanced valve cut-off steamboat engine. This engine is low in first cost, economical in steam consumption, simple, light in weight, noiseless in operation, and the cut-off works as well when backing as when going forward. Many of the Gillett engines are used, some being operated by the most exacting buyers in the market. A leaflet now being issued gives copies of letters from various users, including Southern and Western lumber companies, steamboat captains and owners, United States government engineers, transportation companies and others. Messrs. Gillett & Eaton of Lake City, Minn., build the Gillett engine. They are manufacturers of steamboat machinery.

Power for Baltimore Factories—Maryland Co.'s \$2,000,000 Plant.

There is no doubt but that electricity will be more largely used in the future as a power than any other form of energy. Wherever electric power plants have been established with facilities to furnish energy for manufacturing plants, the owners of the latter have found the results more than satisfying, both from the standpoints of efficiency and economy. It is evident that Baltimore manufacturers will soon be using electricity largely in their plants. Since the great fire of last February many of the most important enterprises of the city, including the leading daily newspapers, have announced their intention to adopt electric power. Managers of small plants especially can find in electric power the economical agent which their wants require. These users of power will greet with satisfaction the completion of the plant which the Maryland Telephone Co. has begun to build on the water front. This plant is expected to be completed by next July, and it will embody all the improvements in electric engineering, enabling the company to furnish power at the lowest possible cost. It will cost about \$2,000,000 to build and equip this large plant.

Messrs. Stuart & Keith's Factory.

From many instances of Baltimore factories being enlarged to meet demands it would seem that the city's great fire of last February acted as an impetus to the industrial spirit of not only those whose plants were destroyed, but also of those not concerned in the conflagration. Among many plants being enlarged is that of Messrs. Stuart & Keith, manufacturers of overalls, drawers and shirts, located at 810 East Pratt street. This firm is now equipping a plant in addition to its original establishment. The new building is at 819 and 821 Granby street. It is a large and commodious structure, in which is being installed an equipment of the very latest models of sewing machines, high-speed double stitchers, cutting machines and other apparatus, all working to the most economical production of the best goods.

W. R. Evans Engineering and Construction.

The W. R. Evans Engineering & Construction Co., offices in the Traction Building, Cincinnati, Ohio, has been organized for the purpose of transacting a general electrical, civil and mechanical engineering business. It has filed articles of incorporation, and has ample resources to undertake and complete the construction of railways, electric-light and power plants, water-works, water-power-electrical plants and other propositions, financing the enterprises whenever required to do so. W. R. Evans is president of the company, and his past successes and present connection in the engineering fields indicated insure the new corporation's ability to give satisfactory results.

To Make Lundell Apparatus.

The National Electric Co. of Milwaukee, Wis., has arranged with Robert Lundell and Robert T. Lozier by which the company will manufacture and market the new motors, generators and systems of operation and control that are covered by the latest inventions of Mr. Lundell. The commercial direction of the undertaking is placed with Mr. Lozier (who will also act as general manager of the electrical sales department of the National Electric Co.). Under this arrangement Mr. Lundell assumes the direct supervision of the engineering involved under the license that he grants the National Company. It might be said that this license covers all of Mr. Lundell's inventions not already under license to other companies and all inventions that he may hereafter make during the life of this license. These inventions of Mr. Lundell cover a new type of motor and dynamo frame construction, as well as a new method of commutation, by which a material gain is obtained in the space occupied by the apparatus, its efficiency and the flexibility of its speed control and regulation. This form of construction represents an important departure in standard motors of fixed speed, and is particularly advantageous in variable-speed motors for direct application to machinery both from point of construction and flexibility of control. The Lundell inventions are equally valuable in systems of regenerative operation and series-parallel control and for the numerous other uses to which electric motors are now so generally applied.

Mississippi Wireglass.

A safeguard to life and property in connection with building construction: a thoroughly efficient fire stop for use in wall, roof, partition or floor openings, permitting the diffusion of light at many points where solid masonry would otherwise be demanded: a reinforced sheet glass which will maintain its integrity and unbroken surface even though cracked indefinitely, and, as such, eliminating the danger of falling glass: an article thoroughly original in conception, and through a long period of experimentation and practical experience brought to a high degree of perfection in material and method of manufacture as well as utility and finish of product. Such is Mississippi wireglass, mentioned last week as having received highest awards at St. Louis. It provides security against fire by a light-admitting, fire-excluding device which is an integral part of the building, and practically self-operative in emergency, and not subject to deterioration, providing aid to firemen in discovering location of fire, securing access to fire without hazard from falling shutters or glass. Mississippi polished wireglass is an improved wireglass equal in strength with respect to the fire and break hazards to the better-known "ribbed," "maze" and "rough" or "hammered" wireglass, and possessing at the same time complete transparency, and available for uses in show-windows and many places, in addition to all uses of ordinary wireglass; also of use for showcases, bookcases, postoffice boxes, ballot-boxes and other places requiring security without obstruction to vision. The Mississippi Wireglass Co.,

277 Broadway, New York, is the manufacturer.

Standard Paint Co.'s Exhibit.

The exhibit of the Standard Paint Co. at the Louisiana Purchase Exposition in the Liberal Arts Building, Section 65, was regarded as a most practical and handsome roofing one. It included large model buildings, complete in every particular, illustrating the uses for which the Standard materials are utilized. One of the models was a cottage covered with Ruberoid green roofing—a very bright, handsome green—and sheathed with Giant insulating papers. Another model showed a factory building in miniature covered with Ruberoid roofing to illustrate its suitability for factory purposes. Ruberoid roofing has attained its popularity not alone because of its superior durability in the point of weather resistance, but because of its convenience and facility of application. Unlike the ordinary tar and tar-and-gravel roofings, it does not require a coating of any hot preparation, nor does it require pebbles or sand to protect its upper surface. It has an outer coating of Ruberoid compound, a combination of fire-resisting ingredients which is owned and patented solely by the Standard Company, which renders it a strong resistant to fire. Burning timbers, etc., cannot ignite it; furthermore, there is no tar to melt and run, and there is no paper in it to rot. As a roofing for factories Ruberoid roofing has proved itself peculiarly serviceable because of its well-known resistance to acid fumes, great heat and torsional strains. It has been in use on numerous foundry buildings throughout the world for from 9 to 12 years, requiring but little or no attention to keep it in repair. Address the Standard Paint Co., 100 William street, New York, for literature about the products mentioned.

The Jacobson Automatic Gas Engine.

Users of gas engines will be interested in a reference to a 20-horse-power horizontal tandem-type "Jacobson" gas engine recently ordered. This engine has a number of very valuable features in design to suit the American conditions. It is designed with removable cylinder bushings. In case an engine has to be put in to run on natural gas, which, of course, is very rich, it will give more horse-power than when running on lighter gases such as producer gas, suction gas or blast-furnace gas. This has been a good deal of drawback in selling larger units in the natural-gas field, where there has been a question as to how long the natural gas would last, and where these engines have afterwards given only from about 70 to 75 per cent. of the rated horse-power on producer gas in case of the failure of the natural gas. With this new improved engine there is a new scavenging system that will clear the compression space in the engine as a standard, and it will then run equally as well on producer gas in case the natural gas gives out. With the removable cylinder bushing system mentioned a larger cylinder may be substituted for the natural-gas cylinder, and with this increased cylinder diameter the engine can be arranged to obtain the same amount of horse-power as its initial rating. The engine is worked on the graduated charge system, but has an additional feature, that when the load becomes so light that there is not a big enough filling for the proper compression, and therefore it is doubtful whether or not the charge will ignite, the gas is cut off entirely and gives just enough air into the cylinder to release the vacuum that there would otherwise be in a common throttling engine, and in that way is obtained higher efficiency in the fuel consumption than by other systems. These new features can be used in engines up to any size and for any purpose where a gas engine is adapted. The Jacobson engine is built by Charles Jacobson of Warren, Pa.

TRADE LITERATURE.

Wolf Calendar for 1905.

With the approach of the new year the machinery trades give some attention to 1905 greetings, and the Wolf Company of Chambersburg, Pa., is sending out the first calendar of the season. This calendar is being distributed chiefly to buyers of Wolf gyrators and oscillators, who number thousands of the progressive millers of the United States. It is in the form of a wall paper holder, the background showing a winter forest scene, and in the foreground is a noble deer with spreading antlers, semicircling around which are beautifully colored leaves, concealed within which are the date pads of the year. The whole is colored similar to nature.

The Avery Steel Ties.

Steel ties equally adapted for steam railways, trolley lines, plantations, industrial purposes generally, and especially where

changes of track are constantly being made, are the subject of a leaflet now being distributed. These ties have many points of merit that will immediately appeal to the discriminating user of such equipment, and no purchaser of ties can afford to be uninformed regarding them. The facts necessary to an appreciation of these meritable features are presented in the leaflet above referred to. Write for one, addressing the Avery Stamping Co., Cleveland, Ohio, patentee and manufacturer of the ties in reference.

Roosevelt's Roof.

Anyone who is about to erect a new structure can't help but be interested in Roosevelt's roof. This roof comes between the executive offices at Washington and the assault made upon them by the elements. The government engineers called for the best American tin, because they considered it the greatest wind, fire and storm protection, and it is therefore of interest to architects, builders and owners of buildings to know that Roosevelt's roof is made of U. S. Eagle N. M. roofing tin, as manufactured by the American Sheet & Tinplate Co., offices in the Frick Building, Pittsburg, Pa. The company is issuing a colored mailing folder which tells some important facts about its tin.

Sackett's Plaster Boards.

Architects and contractors for the erection of buildings will find interesting facts conveyed in the leaflet issued by the Sackett Wall Board Co., 17 Battery Place, New York. The leaflet tells about Sackett's Plaster Boards, a fire retardant and substitute for wood and metal laths for walls and ceilings. The article is made in sheets 32x36 inches, one-quarter of an inch thick. It may be laced with wire to channel-irons or nailed directly to wood studding or exposed wooden surfaces and finished with plaster. The boards are approved by building departments and underwriters' associations, as walls constructed with them are light and durable, fire preventive, etc. They make, on channel-irons, a practical soundproof and fire-proof partition. Send for leaflet of details.

Injector Sand-Blast Apparatus.

The injector sand-blast apparatus is an application of the injector principle (as commonly applied to steam injectors for feeding water to a boiler against its own pressure), the highest velocity necessary being imparted to the mixture of compressed air and sand, enabling it to clean castings, remove scale and rust from iron and steel structural work, dirt from the stone and brickwork of buildings and any other similar work to which the use of this apparatus is especially adapted. A leaflet has been issued to describe and illustrate fully this injector sand-blast apparatus. It is now being distributed, and its circulation will doubtless be the means of acquainting many with the merits of the apparatus and resulting in an increasing demand for the equipment already in use. The apparatus is manufactured by C. Drucklieb, 132 Reade street, New York City. Send to him for descriptive leaflet.

Southern Pipe-Covering Factory.

Various kinds of coverings for piping and similar articles are in continued large demand. A considerable part of this demand comes from the South, and the trade of that section especially is being sought by the Southern Pipe Covering Co. of Richmond, Va., which states it operates the only pipe-covering factory in the South. This company manufactures high-grade asbestos and magnesia sectional steam pipe coverings, molded blocks, standard cements, etc. Pipe coverings of the right quality save steam, time, fuel, boilers and pipes, and for this reason find a ready market among discriminating operators of power plants, etc. The Southern Pipe Covering Co. issues a little leaflet summarizing the quality of its product and explaining the method of its manufacture which secures such excellent results in practice. Write the company for estimates on any kind of insulating material or on contract work. John A. Selph is the proprietor.

The Ingot.

"A non-technical journal of helpful hints for practical users of metals and alloys" is the subtitle of The Ingot. The Ingot aims to help the practical user of metals and alloys by giving him hints from other practical workers and from every source contributing reliable information which all practical workers ought to know. The factory manager and superintendent, the buyer of metals, the brass-foundry foreman, the man in front of the melting furnace, the man handling the pouring ladle, the engineer, master mechanic, machinist, the tinner, plumber and others using metals and alloys in any form will find The Ingot of value to them. The Ingot is issued in the interests of the Riverside Metal Refining Co. of Connellsville, Pa., smelter,

refiner and manufacturer of metals, but this relation will at all times be subordinated to the larger purpose of collecting and disseminating such useful hints, suggestions, discoveries and information as apply to the use of metals and alloys. Send for sample copy.

The Paradigm Skylight.

In the construction of business buildings, especially those of an industrial character, one of the features demanding much attention is that of the lighting. Plenty of natural light is a necessity in many factories, and is superior to artificial lighting in any kind of factory or other structure where light is needed. This cannot be gainsaid. It is, then, a question of providing plenty of natural light, and this is done by the use of the Paradigm skylight and side-lighting system, invented, manufactured and installed by Arthur E. Rendle, 428 Eleventh avenue, New York. Mr. Rendle has issued a large illustrated pamphlet describing his specialty. Views are shown of navy-yard machine shops, prominent manufacturing plants, railway stations, gun shops, locomotive works, train sheds, government buildings and other structures where the Paradigm equipments have been used to the entire satisfaction of all concerned. Send for a copy of the pamphlet mentioned and become acquainted with the meritable features of this modern invention.

For Digging Hard Materials.

The deepening of channels and harbors, the improvement of docks and canals, the draining of vast areas of marsh land, the unloading of ore from vessels, the handling of great amounts of broken stone, garbage, ashes, etc., from deck scows present many difficult economic problems to engineers and contractors. For the economical and efficient conduct of such work there has been designed machinery which is now in extensive use throughout the world. Prominent among the originators of this class of equipment is Messrs. William H. Arnold & Co., 165 Prospect Park West, Brooklyn, N. Y. This company issues an illustrated pamphlet which describes its specialties, the "Arnold" pneumatic clamshell dredging bucket being the principal part of the equipments. Any contractors or others who have to handle the class of hard materials to which reference is made will find the Arnold publication merits their careful consideration. Send for the pamphlet and become acquainted with the advantages of Arnold equipments.

Improved Compressed-Air Street Flushers.

It is just as essential to the good health of a community to have sanitariously clean streets as it is to have an abundance of pure water or ample sewerage and drainage facilities. Nothing is more productive of disease than the dust and slime on a dirty paved surface, and municipalities have therefore taken considerable care to provide means for cleaning and watering such surfaces. The modern street sprinkler does the watering. And the improved compressed-air street flushers do it to the best possible effect. These flushers are built by the American Street Flushing Machine Co. of 25 Broad street, New York. This company's illustrated book tells all about the improved flushers and explains the special points of superiority they possess, especially the Shaw nozzle. The American Company has made a careful study of the design and construction of street flushers, and has met with unusual success in introducing its machines. Inquiries to the new office or to the St. Louis office in Laclede Building will be given prompt attention.

American Spiral-Riveted Pipe.

The strength, lightness and durability of spiral-riveted pipe have for many years been the cause of a steady and increasing demand on the manufacturers. The American Spiral Pipe Works of Chicago, Ill., manufactures its spiral-riveted pipe from the best steel obtainable (60,000 to 70,000 pounds tensile strength), thus furnishing pipe of the highest bursting pressure for different gauges possible. This pipe is thoroughly protected by asphalt coating or galvanizing. In either case it is finished with necessary connections and immersed completely in the hot fluid, making a perfect protective coating inside and outside. The company has issued a new catalogue descriptive of its product. This publication shows views of a number of installations that have been made, and emphasizes the success with which American spiral-riveted pipe is used for supply lines to water-works, supply lines to mines, power lines to water-wheels, exhaust-steam work and kindred uses. It also makes suitable mention of the new American forged-steel flanges now being used on the piping. Besides the information directly connected with the American piping and supplies, the catalogue contains a number of pages of data on hydraulics.

Foundry Chaplets and Anchors.

In the successful operation of foundries the loss from defective castings is an important factor, especially where heavy and intricate core castings are made. The careful foundryman will therefore profit by making investigations as to the cause of such losses, and in many cases will find that imperfect or badly-constructed chaplets are responsible. As the result of this an improved chaplet was devised, and after several months of experimenting the McCoy & Lukens chaplet was perfected and patented. These chaplets and anchors are made of the best soft steel, which will bend double before it will break, permitting the heads to be given any desired shape for special work. They may be bent with a hammer to any radius corresponding with the curved core without any fear of the heads coming off or even of becoming loose. Messrs. W. W. Lindsay & Co., Harrison Building, Philadelphia, Pa., manufacture the McCoy & Lukens foundry chaplets and anchors, and they have issued an illustrated booklet which gives all the details necessary for a foundryman to realize the important and valuable features which they embody. The Pennsylvania Railroad, Philadelphia & Reading Railway, Baldwin Locomotive Works, Standard Steel Works, Cramp's shipyards, R. D. Wood & Co. and many other prominent enterprises are using the new chaplets and anchors.

The Key to Perfect Lubrication.

The general use of high-speed machinery demands lubricants that overcome economically the increased resistance caused by the accelerated speed of contact surfaces. It is generally recognized that the ideal lubricant must possess all the qualities of a high-grade oil, and at the same time have sufficient body to enable it to remain on the bearing surfaces without passing off by gravity or being thrown off by centrifugal force. There has been issued a leaflet entitled "The Key to Perfect Lubrication," which aims to inform users that the requisite qualities of the ideal lubricant are found in the Keystone Grease manufactured by the Keystone Lubricating Co., 25th street and Allegheny avenue, Pittsburgh, Pa. This company has met the requirements of the most exacting users wherever lubrication is a part of the operations. Keystone Grease is made in forms to suit the different uses to which it is to be applied, as for electric-railway motors, high-speed engines, cotton-mill and paper-mill machinery, etc. Some of the best-known chemists and leading universities have attested to the purity and perfection of the ingredients used in making the Keystone product. No engineer, manufacturer or other user of lubricating agents can afford to be ignorant of the meritable features of the Keystone article, and is invited to write the Keystone Lubricating Co. for full details.

Brunswick Refrigerating System.

Those who are at any time thinking of installing ice or refrigerating machinery will find it to their advantage to investigate the Brunswick system. For hotels, restaurants, steamships, etc., the combination Brunswick plants for ice-making and cold storage give most satisfactory results, as cold storage and ice are both necessary. Different characters of refrigeration and ice-making plants of the Brunswick type can be seen in creameries, restaurants, hotels, steamships, private institutions, drug stores, butcher shops, etc. It is therefore evident that it is no longer necessary for the safe conduct of one's business to be dependent upon the uncertainty of the ice dealer or the winter ice crop. The Brunswick Refrigerating Co. of New Brunswick, N. J., builds the equipments mentioned. This company installs complete plant for ice-making, cold storage and water-cooling. Its system has proven such a successful one that demands on the company's facilities are steadily increasing. The Brunswick catalogue presents an illustrated description of the system, besides considerable other information of this nature that will interest. Plants of any size, from the smallest to the largest, will be built by the company under contract. Send for Brunswick literature, giving full details about the system and showing how many small industries now inconvenienced by other methods can find immediate relief by having their own refrigerating plant.

Modern Practice in Air Compression.

A most complete publication of its kind is "Modern Practice in Air Compression." It presents useful information regarding compressed air and its various applications, as well as the special merits of the Sullivan Air Compressors. To meet the demand for compressed air in the mining field, the quarrying, general contracting and manufacturing industries, the Sullivan Air Compressors were placed on the market several years ago. They

were built after years of experience and after the most thorough study of all details of design and construction. The aim of the company is to build not the cheapest machines from the standpoint of price, but those which will in the long run prove to be the most economical, embodying the best materials, the most careful construction and the latest designs approved by modern engineering practice. As a result, the Sullivan compressors perform their duty in a proper and successful manner, and render service not surpassed. A policy of constant advancement is maintained, and improvements are adopted as rapidly as their value is demonstrated or as conditions and requirements demand. The machines are made as mechanically perfect as possible, regardless of expense, and all parts being made to fits and templates are perfectly interchangeable. The company will advise personally with prospective purchasers as to the best manner of filling the requirements of the individual proposition. Write the Sullivan Machinery Co., offices in Railway Exchange, Chicago, Ill.

Activity in Pig-Iron Market.

Matthew Addy & Co. of Cincinnati, Ohio, telegraph to the Manufacturers' Record as follows:

"The iron market continues on the up grade. There is nothing uncertain about its tendency to keep on climbing. Southern prices are established at \$13.50 for No. 2, as against \$13 a week ago, and there have been heavy sales at the top price. To show the feeling in Birmingham proper, a sale has been made there for local consumption of 10,000 tons of No. 2 at \$13.50 for delivery over the second quarter of next year. Southern iron of all kinds is in short supply, and buyers are asking now for long-ahead deliveries, whereas when the time first came they were unwilling to contract very far into the future. Business during the week has been of large volume and it has been exceedingly well distributed.

"Northern iron is as strong as Southern iron, and the price of No. 2 iron f. o. b. Ohio furnace is now strong at \$15.50 as against \$15 a week ago.

"The best feature of the market is that finished goods have responded to the general activity, and in all lines there has been a decidedly increased demand and at better prices.

"The faint-hearted critics of the situation some time since pointed out the fact that there was nothing to sustain the advance in pig-iron because finished materials were so dead, but now this objection is entirely removed."

Exhibits have begun to arrive at Jackson for the Mississippi Cotton and Corn Carnival to open December 12. It is reported that the corn displays are of unusual excellence, the crop in Mississippi this year having been particularly good.

It is announced that Messrs. W. F. Baldrige and W. R. Jones will organize at Houston, Texas, a company to put up rice in cans and jars in the form of rice and milk, rice pudding, rice and tomatoes and rice and chili.

Business men of Danville, Va., are circulating a pamphlet prepared by the Commercial Association of that city, telling of its advantages for manufacturing industries for trade and as a place of residence.

The Kansas City Implement, Vehicle and Hardware Club has elected Messrs. H. B. Topping, president; H. S. Rhodes, J. R. Van Cleve, vice-presidents; J. E. Baird, secretary, and A. C. Trumbull, treasurer.

Mr. M. J. Ryan, inspector of the San Francisco Water-Works Co., is figuring upon the purchase of from \$75,000 to \$100,000 worth of pipe in the Birmingham district.

During October 24,395 tons of phosphate rock were shipped through Savannah for Hamburg, Rotterdam, Genoa, Trieste, Bremen and Venice.

FINANCIAL NEWS

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office Manufacturers' Record.

Baltimore, Md., November 30.

The Baltimore stock market has been almost without feature during the past week, barring the Consolidated Gas deal, which, having been generally anticipated, was without particular effect on prices. There was not a little activity in United Railways issues, but Seaboard, Cotton Dicks and G. B. S. Breweries were generally quiet. Bank and trust company stocks were firm and several of the latter advanced. The rest of the list was steady, except Atlantic Coast Line and Northern Central, which each rose several points.

In the trading United Railways common sold from 8 $\frac{3}{4}$ up to 10 $\frac{3}{8}$, with last sale at 9 $\frac{7}{8}$; the incomes from 47 $\frac{3}{8}$ to 50 $\frac{3}{8}$, with last sale at 49 $\frac{7}{8}$; the 4 per cents from 92 $\frac{1}{4}$ to 93 $\frac{1}{4}$, last sale at 93; United Light & Power preferred sold at 47 and the 4 $\frac{1}{2}$ s at 93 $\frac{1}{4}$ to 93 $\frac{1}{2}$; Consolidated Gas changed hands at 83 to 84, the 6s at 111 $\frac{1}{4}$ and the 5s at 117 to 117 $\frac{1}{2}$; Seaboard common sold at 19 $\frac{1}{8}$ to 19 $\frac{1}{2}$, last sale at 18 $\frac{3}{4}$; the preferred at 38 $\frac{1}{4}$ to 39, reacting to 38, last sale at 38 $\frac{1}{4}$; the 4 per cents at 84 up to 84 $\frac{3}{4}$, the 10-year 5s at 102 $\frac{3}{4}$ to 103, the 3-year 5s at 99 to 99 $\frac{3}{4}$; Cotton Duck common at 8 to 8 $\frac{1}{4}$, the incomes at 29 to 30 $\frac{1}{2}$, the 5 per cents at 74 $\frac{3}{8}$ to 77; G. B. S. Brewing common was traded in at 7 to 8, the incomes at 26 $\frac{1}{4}$ to 27 $\frac{3}{8}$ and the 1sts at 54 $\frac{1}{2}$ to 55 $\frac{1}{8}$.

Bank stocks sold as follows: Citizens', 29 to 28 $\frac{3}{4}$; Merchants', 169. Trust and other company stocks were traded in as follows: Union Trust, 50 to 55; International Trust, 132; American Bonding & Trust, 35 to 37 $\frac{1}{2}$; Fidelity & Deposit, 153 to 155; United States Fidelity & Guaranty, 124 to 130.

Other securities traded in were as follows: Atlantic Coast Line common, 149 to 152; do. Consolidated 4s, 100 to 98 $\frac{3}{8}$; do. 4s Certificates, 90 $\frac{1}{2}$ and 91; Atlantic Coast Line of Connecticut, 305; Northern Central stock, 102 to 107; Raleigh & Augusta 1st 6s, 125 to 125 $\frac{1}{2}$; Savannah, Florida & Western 6s, 130; Newport News & Old Point 5s, 97 to 100; Norfolk Railway & Light 5s, 91 to 91 $\frac{1}{4}$; George's Creek Coal, 80; Baltimore City 5s, 1916, 119 $\frac{1}{4}$ and 120; do. 4s, 1920, 113 $\frac{1}{2}$; do. 3 $\frac{1}{2}$ s, 1928, 110 $\frac{1}{4}$; do. do., 1940, 112; Maryland Telephone 5s, 93; Alabama Consolidated Coal & Iron common, 31 $\frac{1}{2}$ to 32 $\frac{1}{2}$; do. preferred, 80; do. 5s, 83 and 84; Georgia Southern & Florida 1st preferred, 100; 2d preferred, 70; German Fire Insurance, 14; Georgia & Alabama Consolidated 5s, 112 $\frac{1}{4}$ and 112 $\frac{1}{2}$; Maryland & Pennsylvania 4s, 94 $\frac{3}{8}$ to 94 $\frac{1}{2}$; Anacostia & Potomac 5s, 105 $\frac{1}{4}$ and 105 $\frac{1}{2}$; Knoxville Traction 5s, 105; Baltimore Brick stock, 9; Canton Company, 90; Wilmington, Columbia & Augusta 6s, 113 $\frac{1}{4}$; Virginia Railway & Electrical Development 5s, 98 $\frac{1}{2}$; International Mercantile Marine common, 13 $\frac{1}{2}$; do. preferred, 28 $\frac{3}{4}$; Virginia Century 3s, 98; Virginia new 3s, 97 $\frac{1}{4}$; Northern Central 4 $\frac{1}{2}$ s, 111 $\frac{1}{2}$; Charleston & West Carolina 5s, 112 $\frac{3}{8}$; Virginia Midland general mortgage 5s, 116 $\frac{1}{2}$; Wilmington & Weldon 5s, 119 $\frac{1}{2}$; City & Suburban 5s (D. C.), 106 $\frac{1}{2}$; Charleston Consolidated Electric 5s, 90; Augusta Railway & Electric 5s, 104; Consolidation Coal, 68; Maryland Telephone general mortgage 5s, 70; Norfolk Railway & Light stock, 10 $\frac{3}{4}$ and 11; Maryland & Pennsylvania stock, 18; Kansas City Railway & Light 5s,

98%; Florida Southern 4s, 96% and 96%; Georgia Pacific 1sts, 124%; South Bound 5s, 112; Baltimore City 3 1/4s, 102S-1927, 100; Georgia Southern & Florida 5s, 115 1/2.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended November 30, 1904.

Railroad Stocks.	Par.	Bid.	Asked.
Atlantic Coast Line.....	100	152	155
Atlantic Coast Line Pref.....	100	120	120
Atlantic Coast Line of Conn.....	100	312 1/2	320
Charleston Con. Ry., G. & E.....	50	11	11
Georgia Southern & Florida.....	100	27 1/2	28
Georgia Sou. & Fla. 1st Pref.....	100	98	100
Georgia Sou. & Fla. 2d Pref.....	100	67	67
Macon Railway & Light.....	100	24	50
Maryland & Pennsylvania.....	100	18	19
Norfolk Railway & Light.....	100	25	10 1/2
Seaboard Railway Common.....	100	18 1/4	19
Seaboard Railway Preferred.....	100	38	38 1/2
United Railways & Elec. Co.....	50	9 1/2	10
Bank Stocks.			
Citizens' National Bank.....	100	28	29
Commercial & Far. Nat. Bank.....	100	100	100
Drovers & Mech. Nat. Bank.....	100	290	290
Farmers & Mer. Nat. Bank.....	40	57	57
First National Bank.....	100	145	155
German-American Bank.....	100	106	106
German Bank.....	100	102 1/2	103
Merchants' National Bank.....	100	169	175
National Bank of Baltimore.....	100	120	125
National Exchange Bank.....	100	100	100
National Howard Bank.....	100	11	11
National Marine Bank.....	30	36 1/2	37 1/2
National Mechanics' Bank.....	100	29	29
National Union Bank of Md.....	100	119	119
Western National Bank.....	20	41	41
Trust, Fidelity and Casualty Stocks.			
American Bonding & Trust.....	50	35	35
Baltimore Trust & Guarantee.....	100	290	310
Continental Trust.....	100	150	152 1/2
Fidelity & Deposit.....	50	15 1/4	15 1/2
International Trust.....	100	132	133
Maryland Casualty.....	25	67	67
Mercantile Trust & Deposit.....	50	155 1/2	160 1/2
Union Trust.....	50	54	54
U. S. Fidelity & Guaranty.....	100	125	140
Miscellaneous Stocks.			
Alabama Con. Coal & Iron.....	100	32 1/2	32 1/2
Ala. Con. Coal & Iron Pref.....	100	84	85
Consolidated Gas.....	100	84	85
Consolidation Coal.....	100	68	68
Cotton Duck Votting Trust.....	100	8	9
G. B. & S. Brewing Co.....	100	7 1/2	8
George's Creek Coal.....	100	75	80
International Mer. Marine.....	100	14	15
Internatl. Mer. Marine Pref.....	100	28	29
United Elec. L. & P. Pref.....	50	46	48

Railroad Bonds.

Albany & Northern 5s, 1916.....	94	104
Atlanta & Charlotte 1st 7s, 1907.....	107 1/2	108 1/4
Atlan. Coast Line 1st Con. & 1907.....	99 1/2	100
Atlantic Coast Line 4s, Cfs., 1902.....	90 1/2	91
Atlantic Coast Line (Conn.) 5s.....	118	118
Atlantic Coast Line (Conn.) 4s.....	91	96
Carolina Central 4s, 1909.....	98	98 1/2
Char. Col. & Aug. 1st 5s, 1910.....	117 1/2	118
Coal & Coke Railway 5s.....	102 1/2	103
Coal & Iron Railway 5s, 1913.....	103 1/2	104
Columbia & Greenville 1st 6s, 1911.....	117 1/2	118
Florida Southern 4s, 1910.....	96 1/2	96 3/4
Georgia & Alabama 5s, 1915.....	112 1/2	113
Georgia, Car. & North, 1st 5s, 1929.....	112	112
Georgia Pacific 1st 6s, 1922.....	124	124
Georgia South & Fla. 1st 5s, 1915.....	115 1/2	116 1/2
Maryland & Pennsylvania 4s, 1901.....	94 1/2	94 1/2
Potomac Valley 1st 5s, 1911.....	119	119
Raleigh & Augusta 1st 6s, 1926.....	125	126 1/2
Richmond & Danville Gold 6s, 1915.....	118 1/2	118 1/2
Richmond-Washington 4s.....	105	105
Seaboard Air Line 4s, 1910.....	83 1/2	84
Seaboard Air Line 5s, 10-year, 1911.....	102 1/2	103
Seaboard Air Line 5s, 3-year.....	90 1/2	90 1/2
Seaboard & Roanoke 5s, 1926.....	111	111
South Bound 5s, 1911.....	112	112
Virginia Midland 1st 6s, 1906.....	103 1/2	105
Virginia Midland 4th 2-4-5s, 1921.....	113	113 1/2
Virginia Midland 5th 5s, 1926.....	114 1/2	115 1/2
West. North Carolina Con. 6s, 1914.....	117	118 1/2
West Virginia Central 1st 6s, 1911.....	112	112
Wilmington, Col. & Aug. 6s, 1910.....	113	113 1/2
Wilmington & Wel. Gold 5s, 1905.....	119 1/2	120

Street Railway Bonds.

Anacostia & Potomac 5s, 1919.....	105 1/2	106
Augusta Rwy. & Elec. 5s, 1910.....	104	104
Baltimore Traction 1st 5s, 1929.....	112	112
Baltimore Traction Conv. 5s, 1908.....	100	100
Charleston City Railway 5s, 1923.....	106 1/2	107
Charleston Con. Electric 5s, 1909.....	90	93
Citizens' Rwy., L. & P. of N. N. 5s.....	84 1/2	84
City & Suburban 5s (Balt.), 1922.....	115	115
City & Suburban 5s (Wash.), 1918.....	106 1/2	107 1/2
Macon Rwy. & L. 1st Con. 5s, 1903.....	94 1/2	95 1/2
Newport News & Old Pt. 5s, 1908.....	98	100
Norfolk Railway & Light 5s.....	91 1/2	91 1/2
Norfolk Street Railway 5s, 1914.....	108 1/2	109
United Railways 1st 4s, 1919.....	93	93 1/2
United Railways Inc. 4s, 1919.....	49 1/2	49 1/2
Virginia Rwy. & El. Dev. 5s.....	98	99

Miscellaneous Bonds.

Alabama Consol. Coal & Iron 5s.....	83 1/2	84
Atlanta Gaslight 1st 5s, 1917.....	101	101
Consolidated Gas 5s, 1910.....	111 1/2	111 1/2
Consolidated Gas 5s, 1929.....	110 1/2	111 1/2
G. B. & S. Brewing 1st 3-4s.....	55	56
G. B. & S. Brewing 2d Income.....	27 1/2	28
Maryland Steel 5s.....	101	101
Maryland Telephone 5s.....	92	96
Maryland Telephone Gen. Mtg. 5s.....	70	75
Mt. V. & Woodl. Cot. Duck 5s.....	76 1/2	77
Mt. V. & Woodl. Cot. Duck Inc.....	30 1/2	31
United Elec. Light & Power 4 1/2s.....	93 1/2	94 1/2

SOUTHERN COTTON-MILL STOCKS

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for Week Ending November 25, 1904.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.).....	60	75
Alken Mfg. Co. (S. C.).....	85	90
Anderson Cotton Mills (S. C.).....	115	115
Arkwright Mills (S. C.).....	105	105
Augusta Factory (Ga.).....	72	75
Beltton Mills (S. C.).....	98 1/2	101
Buffalo Cotton Mills (S. C.).....	92 1/2	95
Buffalo Cotton Mills (S. C.) Pfd.....	93	96
Cabarrus Cotton Mills (N. C.).....	122 1/2	125
Chadwick Mfg. Co. (N. C.).....	102	102
Chiquola Mfg. Co. (S. C.).....	95	95
Cifton Mfg. Co. (S. C.).....	85	85
Cifton Mfg. Co. (S. C.) Pfd.....	106	106
Clinton Cotton Mills (S. C.).....	135	135

Columbus Mfg. Co. (Ga.).....	90	90
Courtenay Mfg. Co. (S. C.).....	105	105
Dallas Mfg. Co. (Ala.).....	79	85
Darlington Mfg. Co. (S. C.).....	85	90
Eagle & Phenix Mills (Ga.).....	106	106
Easley Cotton Mills (S. C.).....	101	98
Enoree Mfg. Co. (S. C.).....	85	85
Enoree Mfg. Co. (S. C.) Pfd.....	100	100
Enterprise Mfg. Co. (Ga.).....	80	80
Exposition Cotton Mills (Ga.).....	160	200
Gaffney Mfg. Co. (S. C.).....	49	50
Gainesville Cotton Mills (Ga.).....	150	150
Graniteville Mfg. Co. (S. C.).....	120	120
Greenwood Cotton Mills (S. C.).....	102	102
Grendel Mills (S. C.).....	100	100
Henrietta Mills (N. C.).....	196	196
King Mfg. Co., John P. (Ga.).....	88	90
Lancaster Cotton Mills (S. C.).....	100	110
Lancaster Cot. Mills (S. C.) Pfd.....	100	100
Langley Mfg. Co. (S. C.).....	92	98
Laurens Cotton Mills (S. C.).....	171	171
Limestone Mills (S. C.).....	95	95
Lockhart Mills (S. C.).....	94	94
Louise Mills (N. C.).....	98	98
Louise Mills (N. C.) Pfd.....	102	102
Marlboro Cotton Mills (S. C.).....	85	85
Mayo Mills (N. C.).....	150	150
Mills Mfg. Co. (S. C.).....	95	95
Mills Mfg. Co. (S. C.) Pfd.....	100	100
Monarch Cotton Mills (S. C.).....	91	91
Monaghan Mills (S. C.).....	98	103
Newberry Cotton Mills (S. C.).....	120	120
Norris Cotton Mills (S. C.).....	105	105
Orangeburg Mfg. Co. (S. C.) Pfd.....	100	100
Orr Cotton Mills (S. C.).....	99 1/2	101
Pacolet Mfg. Co. (S. C.).....	99	101
Pacolet Mfg. Co. (S. C.) Pfd.....	100	104
Pelzer Mfg. Co. (S. C.).....	172	172
Piedmont Mfg. Co. (S. C.).....	179	181
Poe Mfg. Co. F. W. (S. C.).....	129	135
Raleigh Cotton Mills (N. C.).....	105	105
Saxon Mills (S. C.).....	100	105
Sibley Mfg. Co. (Ga.).....	60	62 1/2
Spartan Mills (S. C.).....	132	140
Trilon Mfg. Co. (Ga.).....	130	145
Tucapau Mills (S. C.).....	145	145
Union Cotton Mills (S. C.).....	125	125
Union Cotton Mills (S. C.) Pfd.....	99	103
Victor Mfg. Co. (S. C.).....	115	125
Warren Mfg. Co. (S. C.).....	99	101
Warren Mfg. Co. (S. C.) Pfd.....	105	105
Washington Mills (Va.).....	20	20
Washington Mills (Va.) Pfd.....	96	96
Whitney Mfg. Co. (S. C.).....	104	110
Wilmington Cot. Mills (N. C.) Pfd.....	100	100
Woodruff Cotton Mills (S. C.).....	97	100

Georgia Railway & Electric Bonds.

Messrs. Spencer Trask & Co., investment bankers, New York city, are distributing among investors copies of an illustrated booklet describing the properties securing the first consolidated mortgage 5 per cent. bonds of the Georgia Railway & Electric Co. of Atlanta, Ga. The pamphlet is an artistic piece of work, and the views of the electric-light power station, the railway power station, car barns, types of cars, specimen of track construction, engine-rooms, etc., should give a prospective investor an intelligent idea of the value of the properties. Several views of the city of Atlanta and some of the larger buildings are also shown, and statements of the finances of the company are likewise presented.

Baltimore Gas Deal.

Announcement is made that a deal has been closed for the purchase of a majority of stock in the Consolidated Gas Co. of Baltimore by Bertron, Storrs & Griscom, bankers, of New York through Townsend Scott & Son, Hambleton & Co., Stein Bros. and Gustavus Ober of Baltimore. No announcement has been made to indicate the persons for whom the purchase was made.

New Corporations.

Efforts are being made by business men and farmers of Randolph and vicinity to organize a bank at Randolph, Texas.

The Bank of Melbourne, Mo., capital \$10,000, has been incorporated by W. H. Metcalf, W. R. Cole and J. McClure.

The City National Bank of Talladega, Ala., capital \$100,000, has been organized to begin business January 1.

A new State bank has been organized at Elba, Ala., with \$50,000 capital. J. M. Garrett is reported to be interested.

The First National Bank, with \$25,000 capital, has been organized at Eddyville, Ky., with T. H. Malloy as president, and James F. Ramey, cashier.

The Bankers' Savings Bank & Trust Co., with \$1,000,000 capital, is being organized at Memphis, Tenn., by Tennessee, Mississippi and Arkansas capitalists.

It is reported that a new bank to be called the Citizens' Bank is being organized at Gloster, Miss., with \$40,000. R. S. McLain will probably be president.

The First National Bank of Uniontown,

Ala., capital \$50,000, has been organized by S. L. Whitfield, F. Meyer, L. J. Pake, S. L. Coleman, C. W. Long and others.

A new bank, to begin business January 1, is being organized at Batesville, Miss., by M. E. Jarratt, assistant cashier of the Bank of Batesville, and other local capitalists.

The First National Bank of Wetumpka, Ala., capital \$25,000, has been organized by Morris Hohenberg, Adolph Hohenberg, O. G. McMorris, L. D. Rouse and C. L. Rodenberg.

The Morganville National Bank has been organized at Morganfield, Ky., with \$25,000 capital. John M. Crowe is president; S. C. Anderson, vice-president, and Charles H. Ellis, cashier.

The First National Bank of Kerens, Texas, capital \$25,000, has been approved. The organizers are Travis Holland, Kerens, Texas; T. S. Daniel, R. H. Daniel, W. S. Price and S. J. Jennings.

The Texas County Bank of Houston, Mo., capital \$20,000, will soon begin business with the following officers: Dr. J. W. Phumister, president; F. P. Rutherford, vice-president; W. J. McGee, cashier.

The Farmers and Merchants' National Bank of Tyler, Texas, capital \$100,000, has been approved. The organizers are Gus F. Taylor, Louis Lipshitz, George S. McGhee, J. W. Fitzgerald and J. B. Mayfield.

The First National Bank of Wetumpka, Ala., capital \$25,000, has been approved. The organizers are Morris Hohenberg, Wetumpka, Ala.; Adolphe Hohenberg, C. C. McMorris, L. D. Rouse and C. L. Rodenberg.

The American National Bank of El Paso, Texas, capital \$200,000, has been approved. The organizers are John M. Wyatt, El Paso, Texas; H. L. Newman, T. M. Wingo, W. J. Harris, John L. Dyer and others.

The Crouch Realty Co. of Johnson City, Tenn., capital \$7500, has been granted a charter. The incorporators are W. P. Crouch, A. B. Crouch, J. E. Crouch, W. J. Matthews, J. W. Cass and George W. Hardin.

The officers of the Texas Mutual Life-Stock Insurance Association of Dallas, Texas, are: I. J. Willingham, president; W. S. Kirby, vice-president; R. C. Ayres, treasurer, and J. J. Orchard, secretary and general manager.

The Farmers' State Bank of Jefferson, O. T., has been incorporated, with \$10,000 capital, by E. F. Quigley, T. M. Aams and John C. Binger, all of Medford; G. W. Lewis, C. T. Jones and Lewis Kubik, all of Jefferson; John T. Stewart of Wellington, Kan.

The Farmers and Merchants' National Bank of Merkel, Texas, capital \$25,000, has been authorized to begin business with the following officers: J. T. Warren, president; G. F. West, vice-president; Henry Jones, vice-president; T. A. Johnson, cashier.

Application for a charter for the First National Bank of Hawkinsville, Ga., with capital of \$50,000, has been made by T. E. Lovejoy, J. J. Whitfield, J. F. Coney, M. M. Parson and A. J. M. Thompson. A later report says the charter has been approved.

The Southern Fire Insurance Co. of Lynchburg, Va., recently organized with \$250,000 capital, has made application for a charter. The officers are J. G. Payne, president; M. H. Dingee, vice-president, and E. P. Miller, treasurer. The secretary is yet to be chosen.

The Bank of Brookneal, capital \$10,000 to \$25,000, with principal office at Brookneal, Campbell county, Virginia, has been granted a charter. The officers are: E. R. Monroe, president, Aspinwall, Va.; N. I. Walthall, vice-president, Brookneal,

TABLE OF CONTENTS.

EDITORIAL:	Page.
For a Greater Baltimore.....	467
Let We Forget.....	467
Whites in Cotton-Growing.....	467
Crowding Out the Negroes.....	467
The Mountain Again in Labor.....	467
New Railroads in Texas.....	468
Visit of English Spinners.....	468
Saving Agricultural Wastes.....	468
The Southern Farm Magazine.....	468
To Make Textile Machinery in the South.....	469
Prosperity of Southern Iron Companies.....	469
The South and the Enrichment of the Nation.....	469
Reasons for New England's Industrial Growth—VII.....	474
New England's Pre-eminence.....	476
The South in Competition With New England.....	476
Disposal of Sewage.....	477
Big Acid and Fertilizer Plant.....	477
The Coal of Tennessee.....	477
Inducements to Manufacturers.....	477
Wants to Locate South.....	477
The Greatness of Texas.....	477
Gold-Mining in Georgia.....	478
Progress at Alexandria, Va.....	478
Lake Borgne Industries.....	478
National Irrigation Congress.....	478
For a Starch Factory.....	478
Asheville's Water Supply.....	478
Tennessee River Improvement.....	478
To Develop Water-Power.....	478
Preparing for the Canal Route.....	478
Would Match Dollars in Industry.....	478
RAILROADS:	
Seaboard & Birmingham.....	478
Four Projects in Georgia.....	478
Race for West Coast.....	479
Wabash Eastern Line.....	479
R. F. & P. Annual Report.....	479
Tidewater Railway.....	479
Monroe & Lake Providence.....	479
Jasper & Eastern Contract.....	479
Rock Island Not to Build.....	479
Double-Track Change of Line.....	479
Building to Tom's Creek.....	479
Cumberland & Mt. Savage.....	479
Louisiana & Arkansas Report.....	479
Engines, Cars and Bridges.....	479
Western Maryland Terminals.....	479
Improvements at Houston.....	479
Houston, Licking & Salem.....	479
Railroad Notes.....	479
MECHANICAL:	
Extension of the Chicago Drainage Canal (Illus.).....	480
The Moffatt Heaters and Pumps (Illus.).....	480
Pumping Tar and Other Heavy Liquids (Illustrated).....	481
Big Chimney of Reinforced Concrete.....	481
Experiment With Italians.....	481
TEXTILES:	
Roll-Weevil Convention.....	482
A Cotton Survey.....	482
Southwestern Cotton Mills Locates.....	482
The Cotton Movement.....	482
Textile Notes.....	482
Quotations of Cotton Yarns.....	482
Trade With Norway.....	482
LUMBER:	
A Virginia Lumber Plant.....	482
Lumber Notes.....	482
Wants Wool-Spinning Plant.....	482
CONSTRUCTION DEPARTMENT:	
Baltimore Building Notes.....	483
New Enterprises.....	484
Building Notes.....	486
Railroad Construction.....	487
Machinery Wanted.....	488
Mexico.....	489
Industrial News of Interest.....	493
Trade Literature.....	490
Activity in Pig-Iron Market.....	491
FINANCIAL NEWS:	
Review of the Baltimore Market.....	491
Securities at Baltimore.....	492
Southern Cotton-Mill Stocks.....	492
Georgia Railway & Electric Bonds.....	492
Baltimore Gas Deal.....	492
New Corporations.....	492
New Securities.....	38
Financial Notes.....	39

Va.; J. L. Wade, Jr., cashier, South Boston, Va.

Mr. W. M. Manchester has been elected vice-president of the Farmers and Merchants' National Bank, recently organized at De Leon, Texas, with \$50,000 capital, by W. S. Whaley, R. W. Higginbotham, F. L. Terrell, T. P. Weaver, T. P. Patterson, J. D. Ham and W. M. Manchester.

[For Additional Financial News, See
Pages 38 and 39.]

